

# Public Health Service

## Research Grants and Fellowships

—Approved during June 1952—

On the following pages, *Public Health Reports* publishes the list of research grants recommended by the National Advisory Councils of the Public Health Service and approved by the Surgeon General. Fellowship awards are also included. Announcements of grants and fellowships are published after each of the three meetings held annually by the National Advisory Councils. The present listing represents actions of the June 1952 sessions which were still in effect on August 15. Withdrawals or other changes since that date have not been taken into account. The National Advisory Councils are made up of outstanding citizens skilled in the medical sciences, education, and public affairs. The Surgeon General may award only those grants recommended by the councils.

The lists of research grants and fellowship awards approved in February 1952, along with a statement describing the program, were published in the June issue of *Public Health Reports*, pp. 596-606.

Grants and fellowships have been grouped together by State, city, and institution. The source of funds for each grant is indicated by initial letters following each entry. The key to these abbreviations appears in the accompanying box.

The subject matter of the individual studies listed here is necessarily described in abbreviated form. The descriptive titles serve only to identify the general field in which the investigator will work.

Fellowships, designated by an asterisk, are identified after each name as follows:

(PB) predoctorate, bachelor	(PD) postdoctorate
(PM) predoctorate, master	(SP) special

Requests for application blanks or for further information concerning the research grant and fellowship programs should be addressed to the Division of Research Grants, National Institutes of Health, Public Health Service, Bethesda 14, Md.

DRG	Division of Research Grants
NCI	National Cancer Institute
NHI	National Heart Institute
NIAMD	National Institute of Arthritis and Metabolic Diseases
NIDR	National Institute of Dental Research
NIMH	National Institute of Mental Health
NINDS	National Institute of Neurological Diseases and Blindness
NMI	National Microbiological Institute

NOTE: An asterisk (\*) appearing before any of the abbreviated keys listed above designates a fellowship award.

### ALABAMA

#### Auburn

##### *Alabama Polytechnic Institute*

Meyer, L. D. (PD) Department of Physiology.

\*NHI

#### Birmingham

##### *Southern Research Institute*

Skipper, H. E. Screening of radioactive anti-leukemic agents.

NCI—\$8,564

##### *University of Alabama*

Holley, H. L. Studies of synovial fluid.

NIAMD—\$6,480

Foley, J. O., and Bruhn, J. M. Neurophysiological study of cerebellum.

NINDS—\$8,000

Hare, W. K. Diuresis and anti-diuresis in infants.

DRG—\$11,923

Sensenig, E. C. Normal and abnormal development of the fetal skull.

DRG—\$10,946

Carlson, W. W. Dextran synthesis by microorganisms.

NHI—\$5,545

Sparks, J. E. (PD) Department of Medicine.

\*NHI

Eddleman, E. E. (PD) Department of Medicine.

\*NHI

Vitale, A. G. (PD) Department of Medicine.

\*NHI

### ARIZONA

#### Tucson

##### *University of Arizona*

Holbrook, W. P., and Kemmerer, A. R. Amino acid metabolism in rheumatoid arthritis.

NHI—\$10,800

## ARKANSAS

### Little Rock

#### University of Arkansas

**Marvin, H. N.** Changes in the enzymic content of bone marrow.

NCI—\$1,836

**Day, P. L., and Shukers, C. F.** Metabolism of white blood cell formation.

DRG—\$10,800

**Hara, M.** Mitral stenosis and pulmonary embolism.

NHI—\$5,022

## CALIFORNIA

### Berkeley

#### California Department of Public Health

**Lennette, E. H.** Pathogenesis of naturally acquired Q fever.

NMI—\$26,545

#### University of California

**Kirk, P. L.** Cytological chemistry and tissue culture.

NCI—\$13,240

**Reeves, W. C.** Epidemiological field studies on encephalitis.

NMI—\$20,017

**Anderson, H., and Johnstone, H.** Growth and control of *Endamoeba histolytica*.

NMI—\$20,773

**Cason, J.** Structure of acids from tubercle bacillus.

NMI—\$10,045

**Kempe, C. H.** An investigation of roseola infantum.

NMI—\$3,984

**Meyer, K. F.** Caprine brucellosis, pathogenesis and immunization.

NMI—\$7,827

**Elliott, H. W.** Mechanisms of analgesia and anesthesia.

DRG—\$14,304

**Chaikoff, I. L.** Iodine metabolism and thyroid function.

DRG—\$20,466

**Barker, H. A.** Synthesis and degradation of fatty acids by bacteria.

DRG—\$9,099

## Grants and fellowship awards, by institute, approved by the Surgeon General, Public Health Service, following recommendations of reviewing consultants in June 1952

Institute	Research grants		Research Fellowships	
	Number of grants	Amount approved for payment	Number of awards	Amount approved for payment
Total.....	1, 085	\$11, 226, 577	540	\$1, 749, 248
Noncategorical: <sup>2</sup>				
Division of Research Grants	315	2, 664, 364	121	394, 319
Categorical:				
National Institute of Arthritis and Metabolic Diseases.....	67	666, 893	22	77, 696
National Institute of Neurological Diseases and Blindness.....	76	669, 152	15	51, 758
National Cancer Institute	190	1, 958, 183	161	499, 688
National Institute of Dental Research.....	24	183, 728	13	50, 000
National Microbiological Institute.....	118	1, 177, 056	42	119, 787
National Heart Institute.....	246	3, 164, 898	92	300, 000
National Institute of Mental Health.....	49	742, 303	74	256, 000

<sup>1</sup> Includes 275 new grants for \$2,495,442; 18 supplements for \$126,079; and 792 continuations for \$8,605,056.

<sup>2</sup> "Noncategorical" research does not fall specifically within the scope of interest of any categorical institute but is presented by the Division of Research Grants, along with study section technical advice, directly to the National Advisory Health Council for consideration.

**Tarver, H.** Incorporation of labeled amino acids into proteins.

DRG—\$6,500

**Arnon, D. I.** Enzyme systems in chloroplasts.

DRG—\$8,755

**Allen, F. W.** Electrophoretic preparation of nucleoproteins.

DRG—\$4,482

**Gotaas, H. B.** Algae symbiosis in sewage oxidation ponds.

DRG—\$15,673

**Li, C. H.** Properties of ACTH active peptides.

DRG—\$30,000

**Dauben, W. G.** Compounds from vitamin D<sub>2</sub> by ultra violet light.

DRG—\$7,030

**Eiler, J. J.** Aerobic phosphorylation.

NHI—\$6,105

**Rinehart, J. F.** Etiology and pathogenesis of arteriosclerosis.

NHI—\$20,244

**Gofman, J. W.** Factors in the pathogenesis of atherosclerosis.

NHI—\$81,000

**Aird, R. B.** Agents influencing vascular permeability.

NHI—\$6,048

**Reinhardt, W.** Role of lymph in shock, hemorrhage, and edema.

NHI—\$9,453

**Sokolow, M., and Harris, R. E.** Natural history and psychodynamics of hypertension.

NHI—\$9,822

**Okey, R.** Protein intake in relation to cholesterol retention.

NHI—\$7,500

**Gough, H. G.** Relation of personality to social adjustment.

NIMH—\$8,856

**Ruesch, J.** Problems of communication in psychiatric patients.

NIMH—\$19,077

**Sarbin, T. R.** Personality characteristics of juvenile delinquents.

NIMH—\$18,242

**Bokman, A. H.** (PD) Department of Medical Botany.

\*NCI

**Stevenson, G. W.** (PD) Department of Chemistry.

\*NINDB

**Pomper, S.** (PD) Department of Bacteriology.

\*NCI

**Lewis, H. W.** (PD) Department of Zoology.

\*NCI

**Handlon, B. J.** (PM) Department of Psychology.

\*NIMH

**Tarshis, I. B.** (PM) Department of Entomology.

\*DRG

**Butler, L. C.** (PM) Department of Nutrition.

\*NIAMD

**Bregoff, H. M.** (PD) Department of Medical Botany.

\*DRG

**Campbell, L. L.** (PD) Department of Medical Botany.

\*NMI

### La Jolla

#### *Scripps Metabolic Clinic*

**Wick, A. N.** Carbohydrate metabolism.

DRG—\$14,040

**Bartlett, G. R.** Metabolism of the red blood cell.

NHI—\$14,850

### Loma Linda

#### *College of Medical Evangelists*

**Hardinge, M. G.** Mechanical factors influencing bone healing.

DRG—\$4,541

### Los Angeles

#### *Cedars of Lebanon Hospital*

**Sobel, H., and Marmorston, J.** Factors in extracellular protein production.

DRG—\$10,000

**Goodhill, V.** Effect of vascular changes upon hearing.

DRG—\$11,950

**Marmorston, J.** Endocrine-renal mechanisms in hypertension and shock.

NHI—\$30,240

### University of California

**Bullock, T. H.** Comparative physiology of the synapse.

NINDB—\$8,482

**Magoun, H. W.** Subcortical electrical activity in seizures.

NINDB—\$8,215

**Roberts, C. S.** Estrogen-protein complexes.

NCI—\$10,994

**Starr, P., and Field, J. B.** Screening for cancer chemotherapy.

NCI—\$26,244

**Ball, G. H.** Cultivation of insect phase of avian plasmodia.

NMI—\$6,947

**Dunn, M. S.** Amino acids in plant and animal materials.

DRG—\$9,844

**Carpenter, C., and Boak, R. A.** ACTH and cortisone in immune mechanisms.

DRG—\$14,446

**Magoun, H. W., and Roberts, S.** Neutral control of ACTH secretion.

DRG—\$11,999

**Clark, W. G., and Griffith, W. H.** Metabolism of pressor amines and "sympathin."

NHI—\$10,000

**Bassett, S. H.** Hormones in treatment of congestive heart failure.

NHI—\$14,000

**Agress, C. M.** Studies on shock following myocardial infarction.

NHI—\$12,000

**Zabin, I.** Biosynthesis of sphingosine.

NHI—\$6,840

**Magoun, H. W., French, J. D., and Morten, M. E.** Radiation and brain.

NCI—\$45,573

**Boder, D. P.** Psychological effects of concentration camp experience.

NIMH—\$7,776

**Berkowitz, E. C.** (PM) Department of Zoology.

\*NINDB

**Whitney, J. E.** (PD) Department of Physiological Chemistry.

\*NCI

**Voas, R. B.** (PD) Department of Anatomy.

\*NIMH

### University of Southern California

**Drury, D. R.** Effect of insulin on glucose metabolism.

NIAMD—\$6,696

**Butt, E. M., and Kessel, J. F.** Pathogenesis of *Coccidioides immitis* and *Cryptococcus neoformans*.

NMI—\$13,932

**Visser, D. W.** Metabolism of uridine and cytidine.

DRG—\$3,780

**Ware, A. G.** Factors involved in the inception of blood clotting.

DRG—\$6,500

**Benson, S. W.** Properties and structure of solid proteins.

DRG—\$8,500

**Baker, R. F.** Reaction of metals with liver and other tissues.

DRG—\$5,076

**Bernick, S.** Electron microscopy of dental tissues.

DRG—\$4,500

**Drury, D. R.** Causal mechanism in experimental hypertension.

NHI—\$17,500

**Hyman, C.** Vascular permeability and filtration.

NHI—\$8,991

**Martin, H. E.** Movement of body magnesium in heart disease.

NHI—\$5,000

**Moore, F. J.** Biochemical basis of adrenocortical therapy.

NHI—\$27,850

**Butt, E. M.** Spectrography of metals in purpura and the anemias.

NHI—\$8,719

### Oakland

#### *Highland-Alameda County Hospital*

**Kinsell, L. W.** Studies in lipid metabolism.

NHI—\$20,000

### Pacific Grove

#### *Stanford University*

**Brokaw, A. D.** (PD) Department of Microbiology.

\*DRG

### Pasadena

#### *California Institute of Technology*

**Lucas, H. J.** Coordination reactions of organic carcinogens.

NCI—\$6,000

**Campbell, D. H., Niemann, C. G., and Pauling, L.** Types, ratios, and behavior of blood proteins.

DRG—\$35,000

**Borsook, H., and Dubnoff, J. W.** Transmethylation mechanisms in animal tissues.

DRG—\$10,789

**Van Harreveld, A.** The nature of Leao's spreading depression.

DRG—\$4,968

**Pauling, L., and Corey, R. B.** X-ray diffraction studies of protein molecule.

DRG—\$19,980

**Borsook, H.** Biological synthesis of protein using isotopes.

DRG—\$20,153

**Campbell, D. H.** Electron microscopy of erythrocytes.

NHI—\$9,720

**Spiegel, M.** (PD) Department of Biology.

\*DRG

**Holden, J. T.** (PD) Department of Biology.

\*DRG

**Landman, O. E.** (PD) Department of Biology.

\*NCI

### San Diego

**Rees-Stealy Medical Research Foundation**

**Stimmel, B. F.** Metabolism of the natural estrogens.

NCI—\$5,000

### San Francisco

**Mt. Zion Hospital**

**Friedman, M., and Rosenman, R. H.** Cholesterol metabolism in thyroid disorders.

NIAMD—\$12,500

**Leeds, S. E.** Blood circulation with use of mechanical heart.

NHI—\$10,838

**San Francisco State College**

**Zaiman, H.** Immunological studies on *Trichinella spiralis*.

NMI—\$4,050

**Stanford University**

**Maumenee, A. E.** Physiopathology of cornea and corneal grafts.

NINDB—\$16,200

**Hinshaw, H. C.** Drugs in treatment of tuberculosis.

NMI—\$18,252

**Kaplan, H. S.** Induction of tumors by roentgen irradiation.

NCI—\$18,000

**University of California**

**Way, E. L.** Basic amines of therapeutic interest.

DRG—\$6,372

**Page, E. W.** Chemical factors in pregnancy toxemia.

NHI—\$5,800

### San Jose

**Laboratory of Criminalistics**

**Bradford, L. W.** Detection of organic poisons.

DRG—\$6,900

### Santa Barbara

**Santa Barbara Botanic Garden**

**Walters, M. S.** Spontaneous chromosome breakage in *Bromus* hybrids.

NCI—\$4,700

### Stanford

**Stanford University**

**Cohn, R.** Arterialization of the liver.

NIAMD—\$8,550

**Luck, J. M.** Nucleoproteins of normal and neoplastic tissue.

NCI—\$24,946

**Danforth, C. H.** Mutagenic effects of nitrogen mustards in the mouse.

NCI—\$7,236

**Carnes, W. H.** Cellular nucleic acid content of thymus.

NCI—\$4,589

**Griffin, A. C.** Nitrogen mustards carcinogenesis.

NCI—\$432

**Perkins, D. D.** Physiological genetics of pathogenic fungi.

NMI—\$3,500

**Greulich, W. W.** Development of the human corpus luteum.

DRG—\$3,618

**Tatum, E. L.** Biosynthesis of amino acids and sterols.

DRG—\$10,260

**Gray, D. J.** Prenatal development of the human hand.

DRG—\$6,407

**Kirkman, H.** Intraepithelial argyrophile cells and mucosal nerve.

DRG—\$2,268

**Rantz, L. A.** Streptococcal infection and rheumatic fever in children.

NHI—\$10,000

**Rather, L. J.** Hypertension and lesions after renal constriction.

NHI—\$3,931

**Grant, R.** Effect of bacterial pyrogens on renal circulation.

NHI—\$7,099

**Stolz, L. M.** Adjustment problems of children born during the war.

NIMH—\$7,776

**Bradshaw, L. J.** (PM) Department of Bacteriology.

\*NMI

**Miller, J. H.** (PB) Department of Biology.

\*NCI

## COLORADO

### Denver

**University of Colorado**

**Clapper, W. E.** Distribution and activities of lactobacilli in saliva.

NIDR—\$5,648

**Dressler, S. H.** Specific therapy in childhood tuberculosis.

NMI—\$3,672

**Washburn, A. H.** Individual differences in growing human beings.

DRG—\$28,500

**MacKenzie, C. G.** Metabolism of single carbon compounds.

DRG—\$14,850

**Holmes, J. H.** ACTH and cortisone and acid-base and water metabolism.

DRG—\$4,835

**Smith, S. W.** Hypothalamic neurosecretory material.

DRG—\$8,589

**Goldensohn, E. S., and Shy, G. M.** Functional and anatomical studies of amygdala.

DRG—\$12,000

**Florio, L.** Etiology of rheumatic fever.

NHI—\$10,600

**Blount, S. G., and Swan, H.** Pulmonary circulation in heart disease.

NHI—\$9,990

**Maaske, C. A., and Swan, H.** Miniature pressure probe for intravascular use.

NHI—\$10,000

**Ranney, R. E.** Actomyosin in the myocardia in cardiac failure.

NHI—\$1,728

**Busse, E. W.** Effect of aging upon the central nervous system.

NIMH—\$7,532

**Bohr, V. C.** (PD) Department of Physiology.

\*NHI

**Sagik, B. P.** (PD) Department of Biophysics.

\*NMI

## CONNECTICUT

### Hartford

#### *Institute of Living*

**Pribram, K. H.** Physiological and behavioral effects of temporal lobe lesions.

NIMH—\$10,530

### Middletown

#### *Wesleyan University*

**Caspari, E.** Immunology of gene-controlled substances.

DRG—\$6,966

**Cochrane, V. W.** Dissimilation of carbohydrate by microorganisms.

DRG—\$5,837

### New Haven

#### *Yale University*

**Klatskin, G.** Tocopherol and bilirubin in liver disease.

NIAMD—\$7,989

**Paul, J. R.** Antibody studies in rheumatoid arthritis.

NIAMD—\$7,560

**Erslev, A. J.** Humoral regulation of erythropoiesis.

NIAMD—\$4,914

**Bondy, P. K.** Growth hormone and carbohydrate metabolism.

NIAMD—\$7,333

**Bondy, P. K.** Rate of release of adrenal cortical steroids.

NIAMD—\$6,329

**Long, C. N. H.** Mechanism of secretion of ACTH.

NIAMD—\$15,000

**Robinson, F.** Physiological pathogenesis of epilepsy.

NINDB—\$9,720

**Gardner, W. U.** Hormonal imbalances in abnormal growths.

NCI—\$10,713

**Bunting, H.** Histochemistry of neoplasia.

NCI—\$900

**Van Wagenen, G., and Gardner, W. U.** Tumorigenesis of the ovary.

NCI—\$13,000

**Trentin, J. J.** Experimental tumorigenesis in mammary gland.

NCI—\$2,400

**Van Eck, G. J.** Effects of X-ray treatment on the monkey ovary.

NCI—\$9,000

**Hoberman, H. D.** Nuclear and cytoplasmic proteins related to mitosis.

NCI—\$4,104

**Peters, J. P.** Precipitable iodine and lipids of the serum.

DRG—\$11,016

**Duran-Reynals, F.** The mesenchyme in natural resistance to infection.

DRG—\$16,200

**Forbes, T. R.** Physiology and metabolism of progesterone.

DRG—\$4,725

**Simmons, L. W.** Survey of areas and methods of research in nursing.

DRG—\$23,051

**Racker, E.** Pathways of aldehyde metabolism.

DRG—\$11,040

**Peters, J. P.** Adrenal cortex on water and electrolyte metabolism.

NHI—\$5,072

**Glenn, W. W. L.** Experimental cardiac surgery.

NHI—\$5,000

**Gray, F. D.** Pulmonary circulation in congestive heart failure.

NHI—\$7,700

**Beeson, P. B., and Bennett, I. L.** Bacterial endotoxins and acquired resistance.

NHI—\$13,197

**Jackson, E. B.** Mental health effects of "rooming-in" maternity wards.

NIMH—\$37,047

**Redlich, F., and Hollingshead, A.** Relationship of social structure to psychiatric disorders.

NIMH—\$25,758

**Cowan, N.** (PM) Department of Medical Botany.

\*NCI

**De Serres, F.** (PM) Department of Medical Botany.

\*NCI

**Dorais, J. N. C.** (PM) Department of Physiological Chemistry.

\*DRG

**Jakoby, W. B.** (PM) Department of Microbiology.

\*NMI

**Kern, M.** (PM) Department of Microbiology.

\*DRG

**Kohn, M.** (PD)

\*NIMH

**Leder, I. G.** (PD) Department of Physiological Chemistry.

\*DRG

**Light, A.** (PM) Department of Physiological Chemistry.

\*NCI

**Rickenberg, H.** (PM) Department of Microbiology.

\*DRG

**Mycek, M. J.** (PM) Department of Physiological Chemistry.

\*DRG

**Tabachnick, I.** (PM) Department of Pharmacology.

\*NCI

**Brightman, M. W.** (PM) Department of Anatomy.

\*NINDB

**De la Haba, G. L.** (PD) Department of Physiological Chemistry.

\*NIAMD

**Girardi, A. J.** (PD) Department of Medicine.

\*NMI

### New London

#### *Connecticut College*

**Goodwin, R. H.** Oat root organic substances that affect growth.

NCI—\$5,500

### Storrs

#### *University of Connecticut*

**Boettiger, E. G.** Neuromuscular mechanisms.

NINDB—\$835

**Shannon, J. E.** (PM) Department of Zoology.

\*NCI

## DISTRICT OF COLUMBIA

### Washington, D. C.

#### *Carnegie Institution of Washington*

**Hershey, A. D.** Growth and inheritance in bacteriophage.

NMI—\$9,000

**Kaufmann, B. P.** Changes induced in the cell by irradiation.

DRG—\$8,863

#### *George Washington University*

**Roe, J. H.** Metabolism of pentoses.

DRG—\$4,035

**Leese, C. E.** Mechanism of protective action of ascorbic acid.

DRG—\$6,500

**Evans, J. M.** Liver dysfunction in congestive heart failure.

NHI—\$13,699

**Blades, B.** Restoration of blood vessels.

NHI—\$11,005

**Blades, B.** Reconstruction of the aortic arch.

NHI—\$10,249

**Way, J. L.** (PM) Department of Pharmacology.

\*NCI

#### *Georgetown University*

**Forster, F. M.** Cytochemical studies of multiple sclerosis.

NINDB—\$10,000

**Fazekas, J. F.** Cerebral circulation and metabolism in the aged.

NHI—\$12,312

**Harvey, W. P.** Reproduction of heart sounds and murmurs.

NHI—\$4,249

**Stohlman, F.** (PD) Department of Hematology.

\*DRG

#### *Howard University*

**Toro, R. A.** Variation and allergenicity of fungi.

NMI—\$7,900

**Harden, K. A.** Chronic pulmonary disease and cardiac function.

DRG—\$3,594

**Hawthorne, E. W.** Cardiac and renal function in renal hypertension.

NHI—\$7,828

#### *Leonard Wood Memorial*

**Doull, J. A.** Clinical evaluation studies in leprosy.

NMI—\$13,500

## *National Academy of Sciences*

**Deignan, S. L.** Medical sciences information exchange.

DRG—\$20,000

## FLORIDA

### Coral Gables

#### *University of Miami*

**Lane, C. E.** Planktonic pigments and vitamin A.

DRG—\$6,948

### Gainesville

#### *University of Florida*

**Ray, F. E.** Localization of S<sup>35</sup> compounds in tumors.

NCI—\$7,900

**Ray, F. E.** Experimental gastric cancer.

NCI—\$13,280

**Calaway, W. T.** Biology of sewage filtration through sand.

NMI—\$13,899

**Phelps, E. B., and Hendrickson, E.** Rapid sewage strength determination.

DRG—\$8,690

**Gregg, J. H.** The slime mold—*Dictyostelium discoideum*.

DRG—\$3,304

**Harlan, W. H.** (PD) Department of Gerontology.

\*NIMH

**Colgan, C. M.** (PM) Department of Psychology.

\*NIMH

### Miami

#### *Mt. Sinai Hospital of Greater Miami*

**Lev, M.** Pathology of the auriculoventricular musculature.

NHI—\$4,428

#### *University of Miami*

**Scheinberg, P.** Studies on cerebral blood flow.

NHI—\$14,000

### Tallahassee

#### *Florida State University*

**Walborsky, H. M.** The synthesis of fluorinated amino acids.

NCI—\$4,981

**Short, R. B.** Cytology of *Schistosoma douthitti*.

NMI—\$4,677

**Frieden, E.** Metabolic changes involved in metamorphosis.

DRG—\$5,000

**Hunter, F. R.** Cation exchange in erythrocytes.

DRG—\$7,884

**Ziegler, A. W.** Zygote germination in the *Saprolegniaceae*.

DRG—\$3,288

**Kelley, G. G.** (PM) Department of Chemistry.

\*DRG

## GEORGIA

### Athens

#### *University of Georgia*

**Foster, J. W.** Chemical fractionation of *Brucella* species.

NMI—\$3,510

### Atlanta

#### *Emory University*

**Ginder, D. R.** Viruses and tumors.

NCI—\$13,176

**Foraker, A. G.** Quantitative techniques in cancer cell counts.

NCI—\$9,968

**Foraker, A. G.** Cell-nuclear measurements in cancer diagnosis.

NCI—\$4,666

**Sheldon, W. H., and Heyman, A.** Fluorescent antibody studies on cell spirochaetes.

NMI—\$12,620

**Merrill, A. J., and Fitzhugh, F. W.** Treatment of renal electrolyte problems.

NHI—\$22,856

**Weens, H. S.** X-ray motion pictures of heart and vessels.

NHI—\$6,000

**Heyman, A., and Patterson, J. L.** Effects of vasodilators upon cerebral circulation.

NHI—\$10,000

#### *Georgia Institute of Technology*

**Dalla Valle, J. M.** Effect of chemical vapors on bacteria.

NMI—\$17,982

#### *Morehouse College*

**Birnie, J. H.** Studies in water metabolism.

NIAMD—\$7,000

### Augusta

#### *University of Georgia*

**Hamilton, W. F.** Physiological and clinical cardiovascular studies.

NHI—\$23,000

## ILLINOIS

### Carbondale

#### *Southern Illinois University*

**Lindegren, C. C.** Adaptive enzymes in genetically defined yeasts.  
NCI—\$5,000

### Chicago

#### *American Meat Institute Foundation*

**Niven, C. F., Jr.** Metabolism of the food-poisoning staphylococcus.  
NMI—\$5,400

#### *Chicago Medical School*

**Davidsohn, I.** Antibodies in animals with cancer.  
NCI—\$14,148

**Koenig, H.** Study of nucleoprotein in developing nerve cells.  
DRG—\$5,200

**Gaberman, P.** Effect of heart failure on body fluid composition.  
NHI—\$5,508

#### *Illinois Institute of Technology*

**Roush, A. H.** Enzymatic reactions with 8-azapurines.  
NCI—\$4,718

#### *Institute for Juvenile Research*

**Darrow, C. W.** Electroencephalographic phase relationships.  
NIMH—\$4,700

#### *Institute for Psychoanalysis*

**Alexander, F., and French, T. M.** Relation of psychodynamic factors to specific organic diseases.  
NIMH—\$14,439

#### *La Rabida Jackson Park Sanitarium*

**Benditt, E. P., and Dorfman, A.** Effect of hormones on capillary permeability.  
NHI—\$14,935

#### *Loyola University*

**Mariella, R. P.** Synthesis of organic polynitriles for cancer chemotherapy.  
NCI—\$5,724

**Mulder, A. G.** Metabolism of heart in experimental heart failure.  
NHI—\$19,099

#### *Michael Reese Hospital*

**Cohn, C.** Influence of diet on metabolic processes.  
NIAMD—\$3,888

**Guterman, H. S.** Metabolism of progesterone.  
DRG—\$6,264

**Singer, K.** Abnormal hemoglobins in hemolytic syndromes.  
DRG—\$5,300

**Kaplan, A.** Identification of lipotropic factor of pancreas.  
DRG—\$3,132

**Katz, L. N., Silber, E. N., and Graham, G. R.** Origin, diagnosis and treatment of heart diseases.  
NHI—\$15,120

**Katz, L. N., Stamler, J., Rodbard, S., and Pick, R.** Experimental atherosclerosis.  
NHI—\$16,812

**Katz, L. N., Rodbard, S., and Graham, G. R.** Effect of work load on heart action.  
NHI—\$13,068

**Stamler, J., Rodbard, S., and Katz, L. N.** Regulation of salt-water exchanges in hypertension.  
NHI—\$15,000

#### *Northwestern University*

**Freeman, S.** Estimation of steroids in body fluids.  
NCI—\$13,878

**Hill, W. T.** Inhibition of chemical carcinogenesis.  
NCI—\$13,150

**Wells, J. A.** Mechanism of action of bacterial pyrogens.  
NMI—\$4,000

**Perry, H. T.** (PD) Department of Orthodontia.  
\*NIDR

**Schwartz, N. B.** (PD) Department of Physiology.  
\*DRG

**Hein, R. R.** (PM) Department of Biology.  
\*NCI

#### *Presbyterian Hospital*

**Hass, G. M.** Differential decomposition cytolysis of tissues.  
NCI—\$7,668

**Hass, G. M.** Transplantation of tissues.  
DRG—\$14,000

#### *University of Chicago*

**Rothman, S.** Studies on diseases of connective tissue.  
NIAMD—\$2,786

**Weiss, P. A.** Growth and function of nerves.  
NINDB—\$8,000

**Polyak, S.** Vertebrate visual system.  
NINDB—\$5,000

**Raper, J. R.** Directed mutations in schizophyllum.  
NCI—\$7,000

**Rasmussen, T.** Local use of beta-emitting isotopes in the brain.  
NCI—\$8,000

**Blayney, J. R.** The effect of water fluoridation on dental caries.  
NIDR—\$19,478

**Koser, S. A.** Oral lactobacilli and dental caries.  
NIDR—\$3,800

**Lester, T. W., and Loosli, C. G.** Nature of air-borne infection and its control.  
NMI—\$18,997

**Taliaferro, W., and Moulder, J. W.** Immunology and biochemistry of malarial parasites.  
NMI—\$7,668

**Ebert, R. H.** Sensitivity and bacteriostasis in tuberculosis.  
NMI—\$13,500

**Loosli, C. G.** Spread of *Histoplasma capsulatum* in nature.  
NMI—\$14,999

**Lewert, R. M.** Histochemical and cytochemical studies of parasites.  
NMI—\$8,316

**Dack, G. M.** Microorganisms associated with gastroenteritis.  
NMI—\$6,411

**Bloom, W., and McLean, F. C.** Studies on the histophysiology of bone.  
DRG—\$11,800

**Anker, H. S.** Mechanisms related to fatty acid synthesis.  
DRG—\$13,888

**Dragstedt, L. R.** Vagotomy in treatment of peptic ulcer.  
DRG—\$21,060

**Gomori, G.** Methods for identification of tissue enzymes.  
DRG—\$4,395

**Schweigert, B. S.** Metabolism of tryptophan and nicotinic acid.  
DRG—\$3,240

**Bloch, K.** The enzymatic synthesis of glutathione.  
DRG—\$7,884

**Tschirgi, R. D.** Neuroglia function.  
DRG—\$5,000

**Wissler, R. W.** Pathology of acute lipid, dietary imbalances.

DRG—\$7,000

**Vennesland, B.** Pyridine nucleotide dehydrogenase action.

DRG—\$6,500

**Alving, A. S., and Pullman, T. N.** Kidney function in normals and hypertensives.

NHI—\$8,359

**Bay, E. B., and Adams, W. E.** Indications for techniques of valvulotomy.

NHI—\$5,000

**Rashevsky, N.** Mathematical biology of circulation.

NHI—\$6,220

**Hess, R. D., Abegglen, J., and Handel, G.** Transmission of psychological characteristics from parent to child.

NIMH—\$9,854

**Fox, M. S.** (PD) Department of Radiology.

\*NMI

**Burstone, M. S.** (SP) Department of Anatomy.

\*NIDR

**Mandle, S.** (PM) Department of Biochemistry.

\*DRG

**Perry, R. P.** (PB) Department of Biophysics.

\*NCI

**Roth, I.** (PM) Department of Psychology.

\*NIMH

**Johnson, W. H.** (PM) Department of Physiology.

\*NHI

**Kalan, E. B.** (PM) Department of Biochemistry.

\*NMI

**Macey, R. I.** (PM) Department of Biostatistics.

\*NHI

**Ochs, S.** (PM) Department of Physiology.

\*NIMH

**Rasch, E. M.** (PD) Department of Medical Botany.

\*NCI

**Wolff, G. L.** (PM) Department of Zoology.

\*NCI

**Butler, W. L.** (PM) Department of Biophysics.

\*NCJ

### *University of Illinois*

**Gerard, R.** Basic studies on cerebral palsy.

NINDB—\$12,030

**Hellebrandt, F. A.** Research upon rehabilitation curriculums.

NINDB—\$11,583

**Schour, I.** Study of odontome formation.

NCI—\$9,828

**Ivy, A. C.** Dyes which differentially stain gastric mucosa.

NCI—\$4,790

**Grant, R.** Growth pattern of the gastric mucosa.

NCI—\$3,800

**Winzler, R. J.** Resistance of leukemias to folic acid antagonists.

NCI—\$12,000

**Kirschbaum, A.** Susceptibility of mice to carcinogenic agents.

NCI—\$3,672

**Kirschbaum, A.** Induction of leukemia and experimental therapy.

NCI—\$7,250

**Sarnat, B. G.** Facial growth.

NIDR—\$3,219

**Shaughnessy, H.** Greater sensitivity in neurotropic virus isolations.

NMI—\$7,041

**Schour, I.** Histopathology of gingiva in systemic disease.

DRG—\$9,936

**Vermeulen, C. W.** Urinary and biliary calculi.

DRG—\$7,000

**Krakower, C. A.** Antigenic and chemical qualities of renal glomeruli.

DRG—\$14,206

**Kark, R. M.** Electrolyte changes in protein anabolism.

DRG—\$8,000

**Everson, T. C.** Nutrition following total gastrectomy.

DRG—\$5,446

**Schiller, A. A.** Factors affecting vascular permeability.

NHI—\$5,967

**Wakerlin, G. E.** Mechanism of experimental hypertension.

NHI—\$20,000

**Hass, G. M.** Isolation and characterization of heart myofibrils.

NHI—\$7,992

**Hass, G. M.** Effect of hypercholesterolemia on vascular disease.

NHI—\$7,452

**Kark, R. M.** Capillary permeability in relation to edema.

NHI—\$15,641

**Kirschbaum, A.** Genetic factors in induced glomerulonephritis.

NHI—\$5,000

**Maher, F. T., and Nedzel, A. J.** Gastro-duodenal pH and motility in hypertension.

NHI—\$3,240

**Manfredi, R. A.** (PD) Department of Physiology.

\*NHI

### *Individual*

**Huggins, C.** Preparation of radioactive compounds B and F.

NIAMD—\$19,800

### *Evanston*

#### *Northwestern University*

**Laufman, H.** Surgical measures in ascites.

NIAMD—\$8,000

**Watterson, R. L.** Cell lineage of cell strains within the neural tube.

NINDB—\$6,048

**Fosdick, L. S.** pH, lactate, and lactic acid in dental plaques.

NIDR—\$4,482

**Grodins, F. S., and Gray, J. S.** Regulation of pulmonary ventilation.

DRG—\$12,000

**Zeller, E. A.** Degradation of amines in tubercle bacilli.

DRG—\$9,000

**Basolo, F.** Steric hindrance of chelating groups.

DRG—\$8,343

**Letsinger, R. L., and Pitts, J. N.** Photochemical processes of biochemical interest.

DRG—\$6,500

**Jarabak, J. R., and Donovan, R. W.** Neurophysiology of jaw muscles.

DRG—\$9,162

**Winch, R. F.** A study of the theory of complementary needs.

NIMH—\$12,266



**Resnik, R. A.** (PD) Department of Chemistry.

\*NINDB

**Peticolas, W. L.** (PM) Department of Chemistry.

\*DRG

**Ktsanes, T.** (PM) Department of Sociology.

\*NIMH

## **Urbana**

### **University of Illinois**

**Tracy, P. H.** Effect of high temperatures on milk and cream.

DRG—\$6,190

**Carter, H. E.** Inositol lipides of plant and animal tissues.

DRG—\$9,646

**Fraenkel, G.** Nutrition of insects.

DRG—\$7,560

**Decker, G. C.** House fly resistance to insecticides.

DRG—\$10,800

**Henderson, L. M.** Concentration of free amino acids in tissues.

DRG—\$4,924

**Nalbandov, A., and Moore, W. W.** Effect of uterine distension on pituitary gland.

DRG—\$5,680

**Cattell, R. B.** Hereditary and environmental factors in children's personality.

NIMH—\$24,772

**Kirk, S. A.** Preschool training for mentally handicapped children.

NIMH—\$28,910

**Kummerow, F. A.** Biology of food emulsifiers and softening agents.

NIAMD—\$6,000

**Thomas, L. J.** Comparative study of diphyllbothrium.

NMI—\$3,155

**Levine, N. D.** Search for protozoan viruses.

NMI—\$5,897

**Crespi, H. L.** (PB) Department of Chemistry.

\*NHI

**Streisinger, G.** (PM) Department of Bacteriology.

\*NMI

## **INDIANA**

### **Bloomington**

#### **Indiana University Foundation Research Division**

**Day, H. G.** Enzymatic conversion of carotene to vitamin A.

DRG—\$500

**Freeman, L. W.** Effects of vascular occlusion in the spinal cord.

NINDB—\$11,000

**Schlaegel, T. F., Jr.** Lieberman effect in binocular perception.

NINDB—\$6,042

**Murray, R. G.** Pure culture of normal and malignant epithelium.

NCI—\$3,294

**Summers, W. A.** Growth requirements of *Toxoplasma gondii*.

NMI—\$3,564

### **Lafayette**

#### **Purdue University**

**Doyle, L. P.** Pathological characteristics of rheumatoid disease.

NIAMD—\$15,000

**Yall, I.** (PM) Department of Biology.

\*NMI

### **Notre Dame**

#### **University of Notre Dame**

**Campbell, K. N.** Synthesis of chemotherapeutic agents for cancer.

NCI—\$8,500

**Campbell, K. N.** Chemotherapy of amebiasis and schistosomiasis.

NMI—\$3,000

**Coleman, R. M.** (PM) Department of Biology.

\*NMI

**Rivard, D. E.** (PD) Department of Chemistry.

\*DRG

## **IOWA**

### **Ames**

#### **Iowa State College**

**Melampy, R. M.** Effect of male sex hormone on the seminal vesicle of the rat.

NCI—\$4,044

**Nelson, F. E.** Multiplication mechanism of *S. lactis* bacteriophages.

NMI—\$6,090

**Schlenk, F.** Metabolism of pentose in nucleic acids.

DRG—\$4,492

**Park, O. W., and Gowen, J. W.** Foulbrood resistance and gynandromorphism in bees.

DRG—\$4,462

**Everson, G. J.** Suboptimum intakes of pantothenic acid in pregnancy.

DRG—\$3,996

### **Des Moines**

#### **Drake University**

**Weeks, J. R.** Respirometer vessel for measuring muscle activity.

DRG—\$3,618

### **Iowa City**

#### **State University of Iowa**

**Janes, R. G.** Cause of diabetic cataract.

NINDB—\$4,300

**Bodine, J. H.** Physiology of embryonic cell.

DRG—\$9,180

**Schueler, F. W.** Sterol analogues.

DRG—\$4,500

**Kollros, J. J.** Factors controlling development of brain size.

DRG—\$3,129

**Nelson, W. O.** Cytology and cytochemistry of the testis.

DRG—\$8,000

**Brown, J. S., and Farber, I. E.** Development of conditioned fear responses.

NIMH—\$3,996

**Ojemann, R. H.** Effect of human behavior classes on adjustment of school children.

NIMH—\$26,618

**Spence, K. W.** Relation of anxiety to behavior disorders.

NIMH—\$5,778

**Richardson, R.** (PD) Department of Bacteriology.

\*NIDR

**Bedell, G. N.** (PD) Department of Medicine.

\*NHI

## **KANSAS**

### **Kansas City**

#### **University of Kansas**

**Steegman, A. T.** Brain waves and lesions in nervous hypertension.

NINDB—\$3,000

**Wilson, S. J.** Variations in activity of blood coagulation factors.

NHI—\$5,160

**Schafer, P. W.** Harmonic analysis of pulse wave forms.

NHI—\$10,800

**Stowell, R. E.** Study of neoplasia by electron microscopy.

NCI—\$6,210

**Firminger, H. I.** Lipoids in developing testicular and other tumors.

NCI—\$8,000

**Stowell, R. E.** Histochemical and cytological study of tumors.

NCI—\$15,570

### Lawrence

#### University of Kansas

**Mulford, D. J.** Metabolism in rats on low choline diets.

NIAMD—\$4,775

**Roofe, P. G.** Development of *Amblystoma* nervous system.

NINDB—\$7,245

**Michener, C. D.** Morphology and ecology of *Culex pipiens*.

NMI—\$2,943

**Downs, C. M.** Rapid diagnosis of rickettsial diseases.

NMI—\$12,288

**Kittle, C. F., and Schafer, P. W.** Autonomic nervous system in gastric secretion.

DRG—\$5,000

**Weir, J. A.** Genetics of natural resistance mechanisms.

DRG—\$3,600

**Barreit, H. W.** Metabolism of thiourylene compounds.

DRG—\$4,500

**Woodard, P. H.** Mechanism of anaphylactic shock.

NHI—\$3,150

**Mulford, D. J.** Production of human plasma for clinical use.

NHI—\$25,326

**Barker, R. G.** Environmental influence on behavior of children.

NIMH—\$18,499

**Young, W. C.** Endocrinological determinants of behavior.

NIMH—\$14,310

### Manhattan

#### Kansas State College

**Setter, D. E.** (PB) Department of Chemistry.

\*NCI

## KENTUCKY

### Louisville

#### University of Louisville

**Griswold, R. A., and Schoen, A. M.** Surgical treatment of peptic ulcer.

DRG—\$7,328

**Brodsky, W. A.** Renal factors in electrolyte economy.

DRG—\$9,240

**Walker, S. M.** Influence of metabolic products upon muscle response.

NHI—\$5,635

## LOUISIANA

### Baton Rouge

#### Louisiana State University

**Werner, H. J.** Microradiographic studies of capillary function.

DRG—\$7,000

**Goss, C. M.** Embryology of mammalian heart.

NHI—\$5,400

**Burdette, W. J.** Metabolism of  $C^{14}$ -labelled compounds.

NHI—\$5,972

**Durlacher, S.** Coronary artery lesions in sudden death.

NHI—\$8,000

### New Orleans

#### Louisiana State University

**Barber, A. N., and Ronstrom, G. N.** Development of the human visual pathway.

NINDB—\$3,656

**Burdette, W. J.** Tumors and mutations in *Drosophila*.

NCI—\$10,000

**Holman, R. L.** Pathogenesis of arterial lesions.

NHI—\$3,618

#### Tulane University

**Goldsmith, G. A.** The B group of vitamins in human nutrition.

NIAMD—\$30,132

**Turner, R. H.** Transport and metabolism of lipids.

NIAMD—\$16,783

**Hodes, R.** Somatic motor responses.

NINDB—\$8,500

**Dunlap, C. E.** Histochemical localization of respiratory enzymes.

NCI—\$8,872

**Baillif, R. N.** Study of reticulo-endothelial reactive mechanisms.

NCI—\$6,000

**Fox, J. P.** Rickettsial disease study project.

NMI—\$20,627

**Kilbourne, E. D.** Effect of steroids on infectivity of viruses.

NMI—\$10,000

**Hodes, R.** Normal and altered neurons.

DRG—\$7,000

**Farber, E.** Ethionene as a metabolic antagonist of methionene.

DRG—\$6,070

**Faust, E. C.** The pathogenicity of *Endamoeba histolytica*.

DRG—\$3,979

**Reed, A. F., and Kirgis, H. D.** Autonomic nervous system studies.

NHI—\$6,000

**Burch, G. E.** Response of cardiovascular system to warm climates.

NHI—\$18,997

**Kurnick, N.** Histochemistry of kidney in heart failure.

NHI—\$16,500

**Schales, O.** The role of enzymes in human red cell preservation.

NHI—\$13,500

**Sprague, C. C.** Studies on red blood cells and platelets.

NHI—\$9,044

**Gillen, H. W.** (PD) Department of Psychiatry.

\*NINDB

**Sabshin, M.** (PM) Department of Psychiatry.

\*NIMH

## MAINE

### Bar Harbor

#### R. B. Jackson Memorial Laboratory

**Runner, M. N.** Studies in hormonal balance and abnormal growth.

NCI—\$30,890

**Kaliss, N.** Normal and neoplastic tissue antigens as affecting tumors.

NCI—\$7,500

**Scott, J. P.** Social and hereditary factors in nervous instability.

NIMH—\$9,288

**King, J. A.** (PD) Department of Abnormal Psychology.

\*NIMH

**Fortiter, R. H.** (PD) Department of Psychology.

\*NIMH

## MARYLAND

### Baltimore

#### *Baltimore City Hospital*

**Rogers, R. S.** Salt and water metabolism in heart failure.

NHI—\$15,000

**Rogers, R. S.** Physiological aspects of aging.

NHI—\$15,000

#### *Johns Hopkins University*

**Bard, P.** Comparative physiology of brain.

NINDB—\$9,990

**Crowe, S. J.** Prevention of deafness by irradiation.

NINDB—\$20,433

**Kuffler, S. W.** Physiology of visual system.

NINDB—\$12,069

**Woods, A. C.** Etiology and treatment of uveitis.

NINDB—\$9,990

**Walker, A. E.** Subcortical epileptic activity.

NINDB—\$10,000

**Kuffler, S. W.** Mammalian small-nerve system.

NINDB—\$9,990

**Hahn, R. D.** Syphilitic primary optic atrophy.

NINDB—\$10,042

**Gey, G. O.** Studies on cultured normal and malignant cells.

NCI—\$24,987

**Morgan, R. H.** Amplification of X-ray fluoroscopic screens.

NCI—\$14,678

**Friedenwald, J.** Histochemical studies on ocular tissues.

NCI—\$6,156

**Mirick, G. S.** Effect of urethane on susceptibility to viruses.

NCI—\$7,857

**Bang, F. B.** Role of filterable particulates in mammary cancer.

NCI—\$3,510

**Moore, J. E.** Studies in the etiology of syphilitic infection.

NMI—\$15,000

**Marshall, E. K., Jr.** Antibiotics and chemotherapeutic agents.

NMI—\$13,824

**Ward, T. G.** Characterization of agents of the common cold.

NMI—\$17,496

**Follis, R. H.** Specific metabolic tissue responses to antigens.

NMI—\$2,916

**Bang, F. B.** Factors influencing the growth of viruses.

NMI—\$8,375

**Rozeboom, L. E.** Comparative biology of mosquito species-complexes.

NMI—\$3,402

**Cort, W. W.** Trematode life cycles and diseases.

NMI—\$2,970

**Turner, T. B.** Biology of spirochetal infections.

NMI—\$28,944

**Barnes, F. W.** Protein response to chemical stimulus.

DRG—\$14,000

**Glass, H. B.** Action of mutagenic agents on *Drosophila* females.

DRG—\$3,499

**Gryder, J. W.** The chemistry of condensed phosphates.

DRG—\$4,217

**Blalock, A. Otis, A. B., and Bahnson, H. T.** Congenital and acquired heart disease.

NHI—\$11,997

**Baker, B. M.** Ballistocardiography in heart disease.

NHI—\$12,000

**Milnor, W. R.** Vectorcardiography.

NHI—\$21,665

**Andrus, E. C., and Marshall, J. M.** Mechanical and electrical properties of myocardium.

NHI—\$10,784

**Magladery, J. W.** Physiology of central nervous system.

NHI—\$6,998

**Richter, C. P.** Experimental pulmonary edema.

NHI—\$7,000

**Richter, C. P.** Physiology of behavior cycles.

NIMH—\$6,912

**Burton, R. M.** (PM) Department of Radiobiology.

\*NHI

**Pullman, M. E.** (PM) Department of Biology.

\*NCI

### *University of Maryland*

**Figge, F. H. J.** Spontaneous and induced melanomas in axolotls.

NCI—\$810

**Amberson, W. R.** Physico-chemistry of muscle cells.

DRG—\$6,973

**Uhlenhuth, E. C.** Anatomy of the pelvis.

DRG—\$4,700

**Fisher, R. S.** Blood and tissue barbiturate analyses.

DRG—\$3,924

**Schmidt, E. G.** Significance of the aromatic acids in human urine.

DRG—\$3,240

**Krantz, J. C., Jr.** Effect of vasodilators on metabolism of arteries.

NHI—\$5,500

**Brown, R. E.** (PM) Department of Pharmacology.

\*NHI

### Catonsville

#### *Spring Grove State Hospital*

**Dyrd, J. E.** (PD) Department of Psychiatry.

\*NIMH

## MASSACHUSETTS

### Amherst

#### *University of Massachusetts*

**Neet, C. C., and Feldman, R. S.** Effect of electro-convulsive shock on psychological functions.

NIMH—\$5,715

### Boston

#### *Boston Dispensary*

**Steckerl, F., and Schmidt, G.** Ribonucleases in tumor cells.

NCI—\$6,150

**Thannhauser, S. J., and Schmidt, G.** Enzymes of the central nervous system.

DRG—\$9,500

#### *Boston Lying-in Hospital*

**Romney, S. L.** Maternal and fetal placental circulation.

NHI—\$10,000

#### *Boston University*

**Lassek, A. M.** Afferent systems and motor function.

NINDB—\$7,560

**Wilkins, R. W.** Hemodynamics in health and hypertension.

NHI—\$28,004

**White, C. W.** Resuscitation of arrested heart.

NHI—\$7,500

**Wyman, L. C.** Peripheral circulation in adrenal imbalance.

NHI—\$5,000

**Bandler, B., Kaufman, I. C., and Malamud, W.** Emotional factors in epilepsy.

NIMH—\$19,750

**Goldman, R. F.** (PM) Department of Biology.

\*NCI

**Semon, R. G.** (PM) Department of Psychology.

\*NIMH

**Goldstein, N.** (PM) Department of Psychology.

\*NIMH

**Brenner, R. M.** (PM) Department of Biology.

\*NCI

**Adams, R. A.** (PM)

\*NCI

**Sherman, J. D.** (PM) Department of Biology.

\*NCI

#### **Children's Medical Center**

**Shwachman, H.** Duodenal enzymes in pancreatic insufficiency.

NIAMD—\$5,886

**Diamond, L. K.** The causes and prevention of kernicterus.

NINDB—\$15,509

**Blout, E. R.** Spectroscopy of nucleic acids and nucleoproteins.

NCI—\$9,990

**Ingraham, F. D.** Effects of gamma radiation on the central nervous system.

NCI—\$8,000

**Thomas, E. D.** Factors in normal and abnormal marrow metabolism.

NCI—\$4,347

**Uzman, L. L.** Properties of lipid protein complexes.

DRG—\$4,000

**Lennox, W. G.** Study of epilepsy and related seizure phenomena.

DRG—\$21,960

**Diamond, L. K.** Blood group and serum reference laboratory.

NHI—\$57,754

#### **Harvard University**

**Sognnaes, R. F.** Histology and chemistry of normal and carious teeth.

NIDR—\$6,939

**Waldo, C. M.** Metabolic factors and tissue changes in tooth movement.

NIDR—\$4,000

**Chatfield, P. O.** Effect of drugs on cortical responses.

NINDB—\$5,000

**Denny-Brown, D. E.** Transient cerebrovascular symptoms.

NINDB—\$8,308

**Blumgart, H. L.** Protoveratrine and renal function in hypertension.

NHI—\$9,500

**Stare, F. J., and Mann, G. V.** Nutrition and development of vascular sclerosis.

NHI—\$19,147

**Thorn, G. W., and Merrill, J. P.** Studies of the artificial kidney.

NHI—\$16,200

**Krayer, O.** Veratramine action on circulatory system.

NHI—\$15,499

**Thorn, G. W., and Jenkins, D.** Pituitary and adrenal hormone studies.

NIAMD—\$13,517

**Snyder, J. C.** Typhus fever and other rickettsial diseases.

NMI—\$18,859

**Mueller, J. H.** Requirements for optimal growth of mycobacteria.

NMI—\$14,688

**Goldstein, A.** Streptomycin dependence in *E. Coli*.

NMI—\$9,629

**Thimann, K. V.** Biogenesis of anthocyanins.

DRG—\$6,015

**Hisaw, F. L.** Endocrines of the female reproductive tract.

DRG—\$13,000

**Alexander, B.** Mechanics of coagulation in rare blood disorders.

DRG—\$17,797

**Lever, W. F.** Fractionation of plasma proteins.

DRG—\$16,317

**Geyer, R. P., and Stare, F. J.** Fat emulsion studies related to cancer.

NCI—\$15,000

**Hertig, A. T.** Chemistry of trophoblastic and endometrial tissues.

NCI—\$12,515

**Hertig, A. T.** Pathogenesis of uterine cervical squamous carcinoma.

NCI—\$2,716

**Case, R. B.** (PD) Department of Physiology.

\*NHI

**Colodny, A. H.** (PD) Department of Surgery.

\*NHI

**Goldman, R.** (PM) Department of Psychiatry.

\*NIMH

**Jandl, J. H.** (PD) Thorndike Memorial Laboratory.

\*NIAMD

**Paganelli, C.** (PM) Department of Biophysics.

\*NHI

**Richman, J. L.** (PD) Department of Cardiology.

\*NHI

**Fitting, C.** (PD) Department of Physical Chemistry.

\*DRG

**Soffe, A. M.** (PD) Department of Cardiology.

\*NHI

**Savlov, E. D.** (PD) Department of Surgery.

\*NCI

**Drolet, M.** (PM) Department of Biostatistics.

\*NIMH

**Maybury, R. H.** (PD) Department of Physical Chemistry.

\*NCI

**Renold, A. E.** (PD) Department of Biochemistry.

\*DRG

**Andrus, S. B.** (PD) Department of Nutrition.

\*NCI

**Freyman, J. G.** (PD) Huntington Memorial Laboratory.

\*NCI

#### **Massachusetts Eye and Ear Infirmary**

**Schepens, C. L.** Structure and properties of vitreous body of the eye.

NINDB—\$24,000

- Grant, W. M.** Pressure-regulating mechanisms in glaucoma.  
NINDB—\$10,800
- Massachusetts General Hospital**  
**White, J. C.** Investigation of the blood-brain barrier.  
NINDB—\$10,535
- Lipmann, F. A.** Carboxyl activation in biosynthetic reaction III.  
NCI—\$11,907
- Castleman, B.** Cancerous cell type changes in endocrine glands.  
NCI—\$9,672
- Meigs, J. V.** Differential cell counts in uterine cervix cancer.  
NCI—\$6,485
- Dienes, L. L.** Pleuropneumonia organisms in health and disease.  
NMI—\$12,106
- Sweet, W. H.** Cerebrospinal fluid studies.  
DRG—\$4,700
- Folch, P. J.** Isolation of brain proteins in native state.  
DRG—\$7,208
- Butler, A. M., McDonald, F. C., and Parke, N. G.** Publication of book on Harvard Pediatric Study.  
DRG—\$4,200
- Talbot, N. B.** Effects of cortisone upon growth and maturation of infants and children with chronic diseases.  
DRG—\$12,000
- Raker, J. W.** Intracellular electrolytes in surgical patients.  
DRG—\$8,418
- Kunz, L. J.** Analysis of the antigens of the mumps virus.  
DRG—\$10,525
- Chapman, W. P.** Effects of brain on circulation and hypertension.  
NHI—\$19,980
- Hess, H. H.** (PD) Department of Biochemistry.  
\*NIMH
- Massachusetts Memorial Hospitals**  
**Weinstein, L.** Mechanisms of streptococcal infection.  
NHI—\$20,000
- Jenson, R.** (PD) Department of Medicine.  
\*NIAMD
- Hollander, W.** (PD) Department of Cardiology.  
\*NHI
- New England Deaconess Hospital**  
**Hicks, S. P.** Pathology of metabolic inhibition in nerves.  
NCI—\$9,774
- Warren, S.** Pathogenesis of the acute radiation syndrome.  
NCI—\$11,718
- New England Medical Center**  
**Rogers, J.** Therapy of menstrual disturbances in obese women.  
NIAMD—\$3,500
- Silverstone, B.** Study of water metabolism in brain tumors.  
NCI—\$16,448
- Welch, C. S.** Replacement of heart by mechanical pump.  
NHI—\$12,850
- Schwartz, W. B.** Relation of salt metabolism to edema.  
NHI—\$10,152
- Schmidt, G.** Nitrogenous compounds and muscle contraction.  
NHI—\$9,180
- Peter Bent Brigham Hospital**  
**Sturgis, S. H.** Effect of steroid hormones on nucleic acids.  
NCI—\$3,256
- Tufts College**  
**Frieden, E. H.** The chemistry and physiology of relaxin.  
NIAMD—\$5,782
- Christensen, H.** Assimilation of amino acids by living cells.  
NCI—\$20,650
- Lisanti, V. F.** The effect of adrenal hormones on pulp and dentin.  
NIDR—\$8,650
- Wagner, R.** Enzyme studies on white blood cells.  
DRG—\$4,320
- Hadidian, Z.** Serum inhibitor of hyaluronidase.  
DRG—\$4,000
- Truant, A. P.** Distribution of local anesthetics.  
DRG—\$3,599
- Cambridge**  
**Harvard University**  
**Mayer, J., and Stare, F. J.** Mechanisms of regulation of food intake.  
NIAMD—\$12,240
- Hegsted, D. M.** Calcium and phosphorous requirements of adulthood.  
NIAMD—\$7,560
- Thorn, G. W., and Miller, B. F.** Transplantation of kidneys.  
NIAMD—\$12,623
- Grant, W. M.** Chemicals injurious to the eye.  
NINDB—\$9,720
- Mallory, G. K., and Zamcheck, N.** Pernicious anemia and gastric cancer.  
NCI—\$6,738
- Hicks, S. P.** Changes in cancer tissue related to radioresistance.  
NCI—\$9,277
- Gray, S. J.** Urinary enzyme test for gastric cancer.  
NCI—\$11,400
- Sommers, S. C.** Susceptibility to multiple cancers.  
NCI—\$8,065
- Cohen, S.** Antibiotics and enzymatic activity of mycobacteria.  
NMI—\$7,350
- Thorn, G. W., and Gibson, J. G., 2d.** Metals in metabolism of human blood cells.  
DRG—\$25,000
- Welsh, J. H.** Mode of action of acetylcholine.  
DRG—\$4,959
- Gardner, F. H.** Mechanisms of hemolysis in hemolytic anemia.  
DRG—\$11,623
- Munson, P. L.** Precursors of dehydroepiandrosterone.  
DRG—\$8,000
- Umbarger, H. E.** Investigations on mutants of *Escherichia coli*.  
DRG—\$4,253
- Castle, W. B.** Hemostatic mechanisms in hemorrhagic states.  
DRG—\$16,119
- Magasanick, B.** Metabolism and biological function of inositol.  
DRG—\$6,000
- Hisaw, F. L.** Synergistic interactions among steroid compounds.  
DRG—\$7,809
- Gray, S. J.** Gastrointestinal response to stress.  
DRG—\$8,100
- Landis, E. M.** Diet in experimental hypertension.  
NHI—\$11,124
- Burwell, C. S.** Circulation in pregnancy.  
NHI—\$16,102

**Mann, G. V., and Stare, F. J.** Studies on S<sub>1</sub> 10-20 molecules.  
NHI—\$39,204

**Blumgart, H. L.** Reflex vagal activity in man.  
NHI—\$6,101

**Gardner, F. H.** Survival of preserved human blood platelets.  
NHI—\$8,187

**Favour, C. B.** Metabolic activities of human leucocytes.  
NHI—\$13,199

**Zoll, P. M.** Cardiac hypertrophy.  
NHI—\$12,829

**Meilman, E.** Chemical and physiological studies in pregnancy.  
NHI—\$8,613

**Greenblatt, M.** Physiological patterns in manic-depressive psychosis.  
NIMH—\$17,753

**Sears, R. R.** Personality development in children.  
NIMH—\$11,800

**Lowell, E. L.** Effect of conflict on behavior.  
NIMH—\$3,562

**Marquis, D. M.** (PM) Department of Chemistry.  
\*NMI

**Rothman, F. G.** (PM) Department of Chemistry.  
\*DRG

**Hendrickson, J.** (PM) Department of Chemistry.  
\*DRG

**Nickon, A.** (PM) Department of Chemistry.  
\*NCI

**Riggs, A. F.** (PD) Department of Biology.  
\*NHI

**Reichmann, M.** (PD) Department of Chemistry.  
\*NCI

**White, W. N.** (PM) Department of Chemistry.  
\*NHI

**Amos, H.** (PD) Department of Bacteriology.  
\*NIAMD

**Cava, M. P.** (PD) Department of Chemistry.  
\*NCI

**Mannick, A. G.** (PM) Department of Physical Chemistry.  
\*DRG

## **Massachusetts Institute of Technology**

**Schmitt, F. O.** Ultrastructure and chemistry of nerve.  
NINDB—\$24,094

**Trump, J. G.** Rotational X-ray therapy with 2 mev radiation.  
NCI—\$51,786

**Bear, R. S.** Structure of protein fibers by X-ray diffraction.  
NCI—\$5,985

**Ippen, A. T.** Air dispersion in activated sludge process.  
DRG—\$9,849

**Sawyer, C. N.** Biochemical oxygen demand determination.  
DRG—\$4,968

**Horwood, M. P.** Zoogaea organisms in activated sludge process.  
DRG—\$11,955

**Sawyer, C. N.** Biochemical characteristics of synthetic detergents.  
DRG—\$8,721

**Richardson, W. L.** (PM) Department of Chemistry.  
\*DRG

**McCall, R. C.** (PB) Department of Physics.  
\*NCI

**Pappas, J. J.** (PB) Department of Chemistry.  
\*NHI

## **Medford**

### **Tufts College**

**Shen, S. C.** Hemoglobinemia in anemia patients.  
DRG—\$6,902

**Margolis, H. I.** Myofunctional therapy in clinical orthodontics.  
DRG—\$7,398

**Guarino, A. J.** (PM) Department of Biochemistry.  
\*NCI

## **Roxbury**

### **J. J. Putnam Children's Center**

**Putnam, M. C., and Rank B.** Severe psychiatric disturbances in preschool children.  
NIMH—\$31,338

## **Shrewsbury**

### **Worcester Foundation**

**Dorfman, R. I.** Metabolism of the steroid hormones.  
DRG—\$9,774

**Phillips, L.** Correlation of ACTH response and social adjustment.  
NIMH—\$15,660

## **South Hadley**

### **Mt. Holyoke College**

**Stein, K. F.** Malocclusion with reference to heredity.  
NIDR—\$1,800

## **Waltham**

### **Brandeis University**

**Kelner, A.** The photo-reversal of ultraviolet effects.  
NCI—\$5,000

## **Wellesley**

### **Wellesley College**

**Austin, M. L.** Effect of injurious agents on growth of paramecium.  
NCI—\$4,428

**Jones, E. E.** Studies on carcinogenesis in mice.  
NCI—\$5,958

## **Worcester**

### **Clark University**

**Werner, H., and Wapner, S.** Perception-personality relationships.  
NIMH—\$20,757

### **Worcester Foundation**

**Pincus, G.** Tissue steroids and adrenal steroidogenic activity of the aged.  
DRG—\$10,000

## **MICHIGAN**

### **Ann Arbor**

#### **University of Michigan**

**Scharenberg, K., and Seevers, M. H.** Neuropathology from analgesic drugs.  
NINDB—\$9,720

**Wheeler, A. H.** Anaphylaxis and its effect on tumors.  
NCI—\$13,371

**Braude, A. I.** Immunologic activity of leukemic leukocytes.  
NCI—\$4,000

**Beierwaltes, W.** I<sup>131</sup>-labelled antibodies against cancer.  
NCI—\$3,000

**Evans, E.** Immunological and chemical studies of antigens.  
NMI—\$8,359

**Bean, J. W.** Oxygen and blood flow studies.  
DRG—\$3,200

**Seevers, M. H.** Central nervous system depressants.

DRG—\$14,958

**Gustafson, F. G.** Factors in the formation of vitamins in green plants.

DRG—\$3,564

**Baylor, M. B.** Growth of cellular and viral components.

DRG—\$9,936

**Lewis, H. B.** Effect of heat on proteins of milk.

DRG—\$4,968

**Nickerson, M.** Pharmacology of adrenergic blocking agents.

DRG—\$14,148

**Gerbasi, F. S.** Respiratory capacity in surgical patients.

DRG—\$11,070

**Elliott, A. M.** Biochemical mutant strains on *Tetrahymena*.

DRG—\$9,720

**Hoobler, S. W.** Effect of splanchnectomy on hypertension.

NHI—\$15,000

**Chenoweth, M.** The pharmacology of fluoroacetate.

NHI—\$8,942

**Chenoweth, M.** Physiology and pharmacology of the heart.

NHI—\$4,995

**Wilson, J. L.** Plasma oxygen tension in infants.

NHI—\$6,000

**Zander, A. F.** Studies in community mental health.

NIMH—\$28,069

**Lippitt, R.** Methods of improving social adjustment in children.

NIMH—\$22,776

**Miller, D. R., and Swanson, G. E.** Personality development as affected by social status.

NIMH—\$20,304

**Goodman, R. R.** (PM) Department of Physics.

\*NCI

## Detroit

### Wayne University

**Axelrod, A. R.** Clinical aspects of sickle cell disease.

NIAMD—\$4,320

**Orten, J. M.** Acids of the tricarboxylic acid cycle.

NIAMD—\$8,424

**Rights, F. L.** Increased resistance to certain viral infections.

NMI—\$3,800

**Rights, F. L.** Gelfoam filter for sampling viral aerosols.

NMI—\$6,000

**Seegers, W. H.** Molecular weight of prothrombin and thrombin.

DRG—\$11,998

**Gardner, E. D.** Physiology of movable joints.

DRG—\$12,000

**Johnston, C. G., and Orten, A. U.** Absorption of amino acids.

DRG—\$10,000

**Evans, F. G.** Functional architecture and mechanics of bone.

DRG—\$8,000

**Djerassi, C.** The active principle of *Butea superba*.

DRG—\$3,130

**Myers, G. B.** Salt and water metabolism in cardiorenal diseases.

NHI—\$20,000

**Eaton, J. W.** Effect of culture on incidence of mental disorder.

NIMH—\$4,644

**Kornhauser, A.** Mental health in mass-production industry.

NIMH—\$25,191

**Polansky, N. A.** Communication of emotion and attitude in the interview situation.

NIMH—\$13,338

**Redl, F.** Effect of activity programs on emotional adjustment of children.

NIMH—\$20,412

## East Lansing

### Michigan State College

**Lucas, E. H., and Byerrum, R. U.** Growth-inhibiting principles from mushrooms.

NCI—\$8,253

**Hunt, H. R., and Hoppert, C. A.** Heredity in the causation of dental caries.

NIDR—\$11,825

**Meites, J.** Modification of hormonal actions.

DRG—\$6,000

**Gurnham, C. F., and Snell, J. R.** Effect of cyanides on trickling filter process.

DRG—\$8,964

## MINNESOTA

### Minneapolis

#### Minnesota Division of Social Welfare

**Willerman, E. G.** Methods of increasing independence of blind children.

NINDB—\$10,315

#### University of Minnesota

**Frey, R. B.** Corticosteroids in edema and in liver disease.

NIAMD—\$5,808

**Baker, A. B.** Endogenous and exogenous cerebral toxins in disease.

NINDB—\$27,463

**Thomas, L.** The mechanism of allergic encephalomyelitis.

NINDB—\$15,903

**Bittner, J. J.** Genesis of mammary cancer in mice.

NCI—\$22,226

**Reed, S. C.** Biology of human breast cancer with particular emphasis upon heredity.

NCI—\$4,364

**Hitchcock, C. R.** Induced stomach cancer in animals.

NCI—\$3,980

**Barnum, C. P., Jr.** Nucleic acid and protein metabolism in cancer.

NCI—\$8,775

**Mitchell, D. F.** Caries and periodontal disease.

NIDR—\$5,448

**Syverson, J. T.** Rapid isolation of microbiological pathogenic agents.

NMI—\$17,139

**Young, G. A., Jr.** Virus diseases affecting man and swine.

NMI—\$9,238

**Armstrong, W.** Metabolism and composition of calcified tissues.

DRG—\$14,493

**Glick, D.** Inhibition of hyaluronidase.

DRG—\$8,000

**Wangenstein, O. H.** Etiology of acid-peptic ulcer.

DRG—\$15,613

**Boyer, P. D., and Briggs, D. R.** Combinations and interactions of proteins.

DRG—\$6,857

**Williams, W. L.** Histochemical technics in liver biopsies.

DRG—\$4,838

**Cohen, S. L.** Studies on the conjugated steroids.

DRG—\$9,695

**Carr, C. W.** A study of the binding of inorganic ions with proteins.

DRG—\$2,900

**Spratt, N. T., Jr.** Nutritional requirements of the early embryo.

DRG—\$3,974

**Glick, D.** Adrenal cell mass as measured by X-ray absorption.

DRG—\$6,000

**Keys, A.** Relationship of diet and exercise to circulation.

NHI—\$30,000

**Watson, D. W., Syverton, J. T., and Comartie, W. J.** Etiology and immunology of rheumatic fever.

NHI—\$20,000

**Schmitt, O. H.** 3-dimensional electrocardiography.

NHI—\$8,500

**Bell, E. T.** Pathogenesis of coronary atherosclerosis.

NHI—\$3,296

**Baronofsky, I. D.** Interauricular communications.

NHI—\$8,000

**Lillehei, C. W.** Experimental endocarditis and glomerulonephritis.

NHI—\$19,296

**Thomas, L.** Pathogenesis of rheumatic fever.

NHI—\$27,047

**Visscher, M. B.** Genetics of response to ACTH and cortisone.

NHI—\$10,005

**Clawson, B. J.** Effect of cortisone on experimental endocarditis.

NHI—\$4,328

**Willerman, B.** Methods of increasing psychological security.

NIMH—\$15,984

**Robins, A. J.** (PM) Department of Social Relations.

\*NIMH

**Pitel, M.** (PM) Department of Anatomy.

\*NHI

**Goodman, H. O.** (PM) Department of Zoology.

\*NCI

**Hammerstrom, R.** (PD) Department of Surgery.

\*NHI

## St. Paul

### University of Minnesota

**Falcone, A. B.** (PD) Department of Biochemistry.

\*DRG

## MISSISSIPPI

### University

#### University of Mississippi

**Guyton, A. C.** Blood volume, vascular reflexes and blood pressure.

NHI—\$10,724

## MISSOURI

### Columbia

#### University of Missouri

**Thomas, L. E.** Development of amino acid histochemical methods.

NCI—\$2,000

**Thomas, L. E.** Proteins of normal and neoplastic tissues.

NCI—\$8,543

**Novitski, E.** Study of the structural properties of chromosomes.

NCI—\$6,324

**Wells, P. H.** Studies on photoreactivation.

NCI—\$3,078

**Hogan, A. G.** Nutrition and hydrocephalus.

DRG—\$7,500

**Bueker, E. D.** Implantation of tumors into chick embryos.

DRG—\$4,320

**Mayer, D. T.** Physiology of mammalian spermatozoa.

DRG—\$5,000

**Kirkham, W. R.** (PD) Department of Endocrinology.

\*NCI

## Kansas City

### University of Kansas City

**Misback, L., and Cadman, W. H.** Group psychotherapy for mental hospital patients.

NIMH—\$15,000

## St. Louis

### Central Institution for the Deaf

**Davis, H.** Validation and improvement of recorded hearing tests.

NINDB—\$4,968

**Davis, H.** Temporal factors in audition.

NINDB—\$19,548

## St. Louis University

**Pinkerton, H.** Therapy with alloxan and related nucleoproteins.

NMI—\$8,640

**Hertzman, A. B.** Nervous control of peripheral circulation.

NHI—\$16,738

**Kuntz, A.** Relationship of nerves to blood vessels.

NHI—\$6,700

**Kuntz, A.** Histochemistry of nerves affecting blood vessels.

NHI—\$11,000

**Schnitzlein, H.** (PM) Department of Anatomy.

\*NIMH

## Washington University

**Silberberg, M., and Silberberg, R.** Nutritional and hormonal factors in joint disease.

NIAMD—\$5,000

**White, H. L.** Water and electrolyte excretion.

NIAMD—\$9,160

**Shank, R. E.** Intermediary metabolism in hepatic disease.

NIAMD—\$10,500

**Daughaday, W.** Study of blood corticosteroids in man.

NIAMD—\$5,100

**Shahan, P. T.** Development of new type of tonometer.

NINDB—\$300

**Hunter, T. H.** Penicillin and combination of antibiotics.

NMI—\$5,500

**Harford, C. G.** Improved diagnosis of pulmonary infection.

NMI—\$1,100

**O'Leary, J. L.** Electrophysiology of the forebrain.

DRG—\$5,184

**Hunter, F. E., Jr.** Coupling of phosphorylation reactions in mitochondria.

DRG—\$9,236

**Friedkin, M. E.** Desoxyribose-1-phosphate in nucleic acid synthesis.

DRG—\$4,000

**Schroeder, H. A.** Mechanisms and therapy of arterial hypertension.

NHI—\$32,400

**Moore, C. V.** Erythropoiesis and iron metabolism.

NHI—\$22,885

**Lansing, A. I.** Cellular calcium binding in ageing.

NHI—\$11,826



**Heinbecker, P.** Neuro-endocrine and endocrine interrelations.

NHI—\$9,130

**Graham, H. T.** Histamine and epinephrine interrelationships.

NHI—\$8,865

**Smith, J. R.** Pulmonary circulation and experimental heart failure.

NHI—\$6,177

**Kirk, J. E.** Metabolism of arterial tissue.

NHI—\$9,848

**Ulett, G. A.** Convulsive and sub-convulsive photic stimulatory therapy.

NIMH—\$20,000

**Polley, E. H.** (PD) Department of Psychiatry.

\*NIMH

**Keller, P. J.** (PM) Department of Biochemistry.

\*NCI

## MONTANA

### Great Falls

**Western Foundation of Clinical Research**

**Schemm, F. R.** Salt and water needs in cardiovascular disease.

NHI—\$33,000

### Missoula

**Montana State University**

**Chessin, M.** Host nutrition and the tobacco mosaic virus.

NMI—\$2,000

## NEBRASKA

### Lincoln

**University of Nebraska**

**Pace, D. M.** Production of growth-regulating substances by cells.

NCI—\$17,991

**Olson, C., Jr.** Causal factors of listeriosis.

NMI—\$10,476

**Militzer, W. E., and Georgi, C. E.** Enzymes of thermophilic bacteria.

DRG—\$8,500

### Omaha

**Creighton University**

**Nierner, W. T.** Cortical mechanisms underlying visceral functions.

NINDB—\$4,000

**Levine, V. E.** Microdetermination of carbonyl compounds.

DRG—\$3,500

**Wilhelmj, C. M.** Nutritional basis of hypertension.

NHI—\$10,000

**Kramar, J.** The maintenance of capillary integrity.

NHI—\$5,154

## NEW JERSEY

### New Brunswick

**Rutgers University**

**Allison, J. B.** Chemotherapy of cancer.

NCI—\$15,000

**Rudolfs, W.** Survival of tubercle bacilli in water.

NMI—\$2,679

**Rudolfs, W.** Anaerobic digestion of sewage.

DRG—\$2,695

**Rudolfs, W.** Sulfur compounds in sewage treatment processes.

DRG—\$2,592

**Rudolfs, W.** Organic degradation in products of sewage.

DRG—\$5,260

**St. Peters General Hospital**

**Moolten, S. E.** Thrombocytopen for prevention of thrombosis.

NHI—\$11,232

### Passaic

**Passaic General Hospital**

**Feltman, R.** Prenatal and post-natal ingestion of fluoride salts.

NIDB—\$7,180

### Princeton

**Princeton University**

**Butler, E. G.** Effects of U. V. radiation on urodele limb growth.

NCI—\$5,400

## NEW MEXICO

### Albuquerque

**Lovelace Clinic and Foundation**

**Boothby, W. M.** Respiratory and circulatory efficiency.

NHI—\$14,796

**University of New Mexico**

**Eversole, W. J.** Endocrine regulation of water metabolism.

NIAMD—\$5,000

## NEW YORK

### Albany

**New York State Department of Health**

**Gilcreas, F. W.** Survival of enteric viruses in water.

NMI—\$17,000

**Research Foundation of State University of New York**

**Fischthal, J. H.** Fish hosts of *Diphyllbothrium latum*.

NMI—\$2,376

**Feldman, H. A.** Role of toxoplasma in human disease.

NMI—\$6,193

**Union University—Albany Medical College**

**Wright, A. W., and Wolfe, J. M.** Etiology of spontaneous mammary tumors.

NCI—\$11,707

**Olson, K. B.** Spectrochemical analysis in human tissues.

NCI—\$7,308

**Miller, R. A.** Genesis of adrenal cortical secretions.

DRG—\$2,916

**Wiggers, H. C.** Experimental defects of heart septa and valves.

NHI—\$7,948

### Buffalo

**Children's Hospital**

**Neter, E.** Respiratory tract infection with enteric bacilli.

NMI—\$5,240

**University of Buffalo**

**Talbott, J. H.** Pathogenesis and treatment of gout.

NIAMD—\$6,630

**Stewart, J. D.** Portal hypertension.

NHI—\$16,811

**Lambert, R. M.** (PM) Department of Bacteriology.

\*NMI

**Oyen, I. H.** (PM) Department of Physiology.

\*NHI

### Ithaca

**Cornell University**

**Baker, J. A.** Rickettsial infections in domestic animals.

NMI—\$10,000

**Bruner, D. W.** Induced variation in the genus *Salmonella*.

NMI—\$2,000

**Naylor, H. B., and Siegel, B. M.** Electron microscopy of latent host-phage complex.

NMI—\$4,616

**McCay, C. M.** Research upon aging.

DRG—\$23,598

**Liddell, H. S.** Relation of aging to tolerance for environmental stress.

NIMH—\$8,694

**Bronfenbrenner, U.** Determinants of constructive behavior.

NIMH—\$15,000

**Steward, F.** Metabolism of growing and non-growing plant cells.

NCI—\$11,000

**Walsh, R. R.** (PM) Department of Zoology.

\*NIMH

### New York City

**American Society of Heating and Ventilating Engineers**

**Hick, F. K.** Adjustment to atmospheric environment.

DRG—\$4,882

### Barnard College

**Deyrup, I. J.** Metabolism of vertebrate kidney.

DRG—\$600

### Beth El Hospital

**Gruenwald, P., and Schick, B.** Fetal and neonatal asphyxia and treatment.

DRG—\$5,486

### Beth Israel Hospital

**Sugaar, S.** The role of the nervous system in metastasis.

NCI—\$12,555

### Brooklyn College

**Ogur, M.** Relationships of nucleic acids and genetic material.

DRG—\$4,000

### Columbia University

**Ragan, C.** Effect of hyperadrenalism in rheumatoid arthritis.

NIAMD—\$10,800

**Jailer, J. W.** Metabolic studies in adrenal hyperplasia.

NIAMD—\$6,723

**Gellhorn, A.** Purines and pyrimidines in cancer chemotherapy.

NCI—\$10,000

**Murray, M. R.** Cancer research by the methods of tissue culture.

NCI—\$19,663

**Murray, M. R.** Bibliography of tissue cultures.

NCI—\$35,000

**Pollister, A. W.** Electron micrography of ultrathin sections of cells.

NCI—\$8,424

**Levy, B. M.** Studies on the development of the mandibular arch.

NIDR—\$4,860

**Alexander, H. E.** Pathogenicity of human and swine influenza bacilli.

NMI—\$13,000

**Buxton, C. L.** Bacteriology of the cervix in sterility.

NMI—\$7,045

**Amberson, J. B.** Drug treatment of pulmonary tuberculosis.

NMI—\$34,521

**Kabat, E. A.** Studies on blood group substances A, B and O.

DRG—\$11,934

**Gilman, A.** Drugs affecting renal physiology.

DRG—\$9,984

**King, C. G.** Biochemical study of vitamin C.

DRG—\$12,485

**Shemin, D.** Porphyrin formation and the tricarboxylic acid cycle.

DRG—\$9,000

**Nachmansohn, D., and Wilson, I. B.** Chemical mechanism of nervous action.

DRG—\$14,000

**Merritt, H. H.** Contraction and conduction in muscles.

DRG—\$5,000

**Caldwell, M. L.** A study of amylases of animal origin.

DRG—\$5,788

**Sperry, W. M., and Taylor, R. M.** Brain studies by perfusion technique.

DRG—\$14,996

**Nelson, C. T.** Effect of cortisone on anaphylaxis.

DRG—\$5,778

**Meyer, K.** The ground substances of connective tissue.

DRG—\$20,000

**Turner, J. C.** Effects of chemical agents on hemopoiesis.

DRG—\$5,265

**Holden, M.** Effect of cortisone on tissue cultures.

DRG—\$6,500

**Sprinson, D. B.** Amino acids and the biosynthesis of purines.

DRG—\$7,992

**Simms, H. S.** Fat deposition in arteriosclerosis.

NHI—\$20,628

**Nickerson, J. L.** Clinical ballistocardiography.

NHI—\$17,500

**Nachmansohn, D.** Enzyme mechanisms in the nervous regulation of the heart.

NHI—\$11,000

**Richards, D.** Cardiorespiratory studies in chronic diseases.

NHI—\$27,500

**Simms, H. S.** Age alterations affecting death rate.

NHI—\$29,916

**Goldenberg, M.** Adrenal medullary hormones in hypertension.

NHI—\$16,600

**Gertler, M. M.** Biochemistry of pathological cardiac muscle.

NHI—\$6,372

**Lax, H.** Clinical significance of arterial pressure waves.

NHI—\$9,180

**Copenhaver, W.** Histochemical study of heart conduction tissue.

NHI—\$1,944

**Gartler, S. M.** (PD) Department of Genetics.

\*NIMH

**Hodes, M. E.** (PD) Department of Biochemistry.

\*NCI

**Lesse, S.** (PD) Department of Psychiatry.

\*NIMH

**Peyser, P.** (PM) Department of Biochemistry.

\*DRG

**Schiffmann, E.** (PM) Department of Bacteriology.

\*DRG

**Shapiro, H. S.** (PB) Department of Biochemistry.

\*NCI

**Taleporos, P. D.** (PM) Department of Zoology.

\*NCI

**Ruben, L. N.** (PM) Department of Zoology.

\*NCI

**Levin, M. L.** (PM) Department of Psychiatry.

\*NIMH

**Malamed, S.** (PM) Department of Zoology.

\*NCI

#### **Cornell University**

**Lauson, H. D.** Neurohypophyseal antidiuretic hormone.

NIAMD—\$5,500

**Smith, C. H.** Diagnosis and treatment of hemosiderosis.

NIAMD—\$13,431

**Vogel, F. S.** Vascular anomalies in brain malformations.

NINDB—\$4,644

**Kidd, J. G.** Resistance and immunity to transplanted cancer cells.

NCI—\$25,000

**McDermott, W.** Recovery and relapse in drug-treated infections.

NMI—\$36,635

**Sugg, J. Y.** Antigenicity and pathogenicity of influenza viruses.

NMI—\$4,860

**Loveless, M. H.** Human antibodies in hypersensitive and immune states.

DRG—\$10,000

**Lawton, R. W.** Elastic properties of different tissues.

DRG—\$5,000

**Richter, G. W.** Effect of nucleic acid on hyperglobulinemia.

DRG—\$3,996

**Kellner, A.** Lipids of extracellular fluids and blood serum.

NHI—\$8,000

**Shorr, E.** Hepato-renal factors and peripheral circulation.

NHI—\$32,910

**Conway, J. H.** Circulation in skin grafts.

NHI—\$13,910

**Wolff, H. G.** Relation of life stress to hypertension.

NHI—\$7,560

**Travell, J.** Studies on muscular pain in heart disease.

NHI—\$6,000

**Gold, H., and Greiner, T. H.** Digitalis and its glycosides.

NHI—\$24,999

**Pitts, R. F.** Renal regulation of body fluid composition.

NHI—\$15,000

**Barr, D. P.** Protein-lipid relationships in plasma.

NHI—\$31,778

**Garb, S.** Electrical potentials of cardiac muscle.

NHI—\$6,700

**Kellner, A.** Blood coagulation defect and focal myocarditis.

NHI—\$6,500

**Kellner, A.** Erythroblastosis fetalis in animals.

NHI—\$5,000

**Watson, R. F., and Rothbard, S.** Experimental studies on rheumatic fever.

NHI—\$14,657

**Child, C. G., 3d.** Portal hypertension.

NHI—\$10,000

**Barber, J. K.** (PD) Department of Pediatrics.

\*NHI

**Berntsen, C. A.** (PD) Department of Medicine.

\*NMI

**Elemdorf, D. F.** (PD) Department of Medicine.

\*NMI

**Lowy, B. A.** (PM) Department of Biochemistry.

\*NCI

#### **Fordham University**

**Brown, E. V.** Carcinogenic activity of analogs of butter yellow.

NCI—\$5,616

**Misiak, H.** Critical flicker frequency and old age.

DRG—\$4,428

#### **Haskins Laboratory**

**Provasoli, L.** Culture of microorganisms objectionable in water.

DRG—\$10,000

#### **Hoagland Laboratory**

**Oliver, J.** Study of mammalian nephron.

NHI—\$5,400

#### **Hospital for Special Surgery**

**Freyberg, R. H.** Mechanism of cortisone in arthritis.

NIAMD—\$4,968

#### **Institute for Intercultural Studies**

**Zborowski, M.** Cultural components in attitudes toward pain.

NIMH—\$13,618

#### **Jewish Hospital of Brooklyn**

**Sobel, A. E.** Calcification of teeth and its relation to human caries.

NIDR—\$14,687

#### **Montefiore Hospital**

**Seidlin, S. M.** Study of tumor metabolism. Thyroid carcinoma.

NCI—\$6,750

**Lefkowitz, W.** Growth of tooth germs *in vitro*.

NIDR—\$8,996

**Leiter, L.** Edema in chronic heart failure.

NHI—\$23,000

#### **Mt. Sinai Hospital**

**Klemperer, P., and Ludwig, A. W.** Intermediary substances of the connective tissue.

NIAMD—\$12,528

**Lee, S. L.** Nucleoprotein catabolism in lupus erythematosus.

NIAMD—\$4,622

**Davidoff, L. M.** Localization of brain tumors by radioactive dyes.

NCI—\$21,113

**Hollander, F.** Etiology of peptic ulcer.

DRG—\$11,990

**Adlersberg, D.** Hereditary aspects of arterial disease.

NHI—\$9,720

**Friedberg, C.** Factors affecting renal function in heart failure.

NHI—\$11,016

#### **National Association for Mental Health, Inc.**

**Fuller, R. G.** Survey of laws for administration of mental institutions.

NIMH—\$19,462

#### **New York Medical College**

**Neuberg, C.** Meta- and polyphosphates, nucleic acids.

NCI—\$5,238

**Scherf, D.** Mechanism of abnormal cardiac rhythms.

NHI—\$5,994

#### **New York State Psychiatric Institute**

**Lewis, N. D. C.** Psychological criteria for organic cerebral disorders.

NINDB—\$15,000

**Waelsh, H.** Amino acid metabolism of the nervous system.

NINDB—\$20,000

**New York University**

**Schubert, M. P.** ACTH and cortisone effect on connective tissue.

NIAMD—\$15,000

**Marsland, D.** Mechanisms of cell division: Pressure-temperature study.

NCI—\$2,451

**Kopac, M. J.** Mechanisms of protoplasmic growth.

NCI—\$7,500

**Twombly, G. H.** Metabolism of C-14 labeled diethylstilbestrol.

NCI—\$14,000

**Sulzberger, M.** Immunology of carcinogenesis.

NCI—\$10,000

**Harnly, M. H., and Kopac, M. J.** *Drosophila* tumor genes.

NCI—\$3,600

**Twombly, G. H.** Synthesis and metabolism of B-naphthylamine.

NCI—\$14,000

**Reisner, E. H.** *In vitro* culture of hematopoietic tissues.

NCI—\$9,936

**Bevelander, G.** Calcification of teeth and bones.

NIDR—\$3,000

**Addelston, H. K.** X-ray diffraction of normal and treated tooth enamel.

NIDR—\$10,000

**Butcher, E. O.** Preattachment of enamel epithelium and repair of periodontal membrane.

NIDR—\$2,970

**Lincoln, E. M.** Chemotherapy of tuberculous children.

NMI—\$11,804

**Holt, L. E., Jr.** Pertussis antibodies after infection and vaccination.

NMI—\$8,046

**Ochoa, S.** Enzymes in biological oxidation and syntheses.

DRG—\$10,000

**Doubilet, H.** Biliary-pancreatic reflux.

DRG—\$11,880

**Keston, A. S.** Synthesis of specific proteins by tissues.

DRG—\$10,000

**Eisen, H. N.** Radioactive tracers in the study of sensitization.

DRG—\$6,966

**Cooper, I. S., Reid, C., and Rusk, H. A.** Electrolyte metabolism in neurological diseases.

DRG—\$6,000

**Tillett, W. S.** Lytic enzymes of streptococci.

NHI—\$14,000

**Eisen, H. N.** Reaction of antisera with haptens.

DRG—\$7,236

**Rusk, H. A.** Energy expenditure of cardiac patients.

NHI—\$15,282

**Zweifach, B.** Significance of capillary reactivity.

NHI—\$22,213

**Jahoda, M.** Mental health in a defense production community.

NIMH—\$30,279

**Kiebel, G. P.** (PM) Department of Biology.

\*NHI

**Polytechnic Institute of Brooklyn**

**Gregor, H. P.** Ion exchange resin gels.

DRG—\$7,387

**Becker, E. I.** Sterol models.

DRG—\$7,000

**Rosenthal, N. A.** (PM) Department of Chemistry.

\*DRG

**Kogan, I. C.** (PM) Department of Chemistry.

\*NCI

**Public Health Research Institute**

**Schlesinger, R. W.** Propagation and differentiation of dengue virus.

NMI—\$11,700

**Hirst, G. K.** Strain difference studies.

NMI—\$5,500

**Research Foundation of State University of New York**

**Brooks, C. M.** Central synaptic transmission of nerve impulses.

NINDB—\$2,500

**Bass, A. D., and Distefano, H.** Nucleoprotein changes in mammalian tissues.

NCI—\$8,424

**Muntwyler, E.** Hemolysate metabolism and membrane equilibria.

DRG—\$3,240

**Loomis, D.** Nature of hypertension following renal infarction.

NHI—\$7,956

**Dennis, C.** Pump-oxygenator to replace the heart and lungs.

NHI—\$30,240

**Conrad, H., Jr.** (PD) Department of Hematology.

\*NCI

**Rockefeller Institute for Medical Research**

**Marmur, J.** (PD) Department of Bacteriology.

\*DRG

**Sloan-Kettering Institute, Memorial Center for Cancer and Allied Diseases**

**Gallagher, T. F.** Biochemical investigation on steroids.

NCI—\$39,009

**Mellors, R. C.** Study of cancer cells with newer optical methods.

NCI—\$10,535

**Bodansky, O.** Study of enzymes present in human blood.

NCI—\$6,000

**Moore, A.** Relationship of virus infection to tumor growth.

NCI—\$20,000

**Nickson, J. J., and Escher, G. C.** Ability of hormones to modify radiation response.

NCI—\$43,150

**Gallagher, T. F.** Phenolic substances in human urine.

DRG—\$22,775

**St. Luke's Hospital**

**Keating, J. H.** Studies on the time factors in atherosclerosis.

NHI—\$3,000

**Rochester**

**Eastman Dental Dispensary**

**Bibby, B. G.** Caries producing potentialities of foodstuffs.

NIDR—\$6,300

**Brudevold, F.** Radioactive fluoride uptake by enamel.

DRG—\$3,200

**University of Rochester**

**Smith, W. K.** Phosphatase enzymes in the nervous system.

NINDB—\$6,000

**Peskin, J. C.** Biochemistry of visual receptor system.

NINDB—\$2,748

**Tarbell, D. S.** Structure of colchicine and effect on mitosis, etc.

NCI—\$7,948

**Bloor, W. R.** Lipid metabolism of tumor-bearing animals.

NCI—\$9,996

**Caplin, S. M.** Effect of coconut milk extracts on plant morphology.

NCI—\$3,597

**Dunham, T., Jr.** Microspectroscopic studies of biological tissues.

NCI—\$22,461

**Bradford, W. L., and Scherp, H.** Hypersensitivity in pertussis and parapertussis.

NMI—\$8,669

**Morgan, H. R.** Enzymes and metabolism in psittacosis and mumps.

NMI—\$8,046

**Stotz, E. H., and Witter, R. F.** The enzymatic oxidation of fatty acids.

DRG—\$8,232

**Young, L. E.** Specificity of erythrocyte-isoantibody reactions.

DRG—\$13,000

**Koos, E. L.** Social characteristics in relation to health.

DRG—\$5,506

**Fowler, R. C.** Infrared absorption spectra of certain lipids.

DRG—\$8,000

**McCann, W. S.** Pulmonary heart disease and hypertension.

NHI—\$24,648

**Wedd, A. M.** Effects of drugs on heart action.

NHI—\$4,000

**McCann, W. S.** Physiology of isolated arteries and veins.

NHI—\$10,000

**McCann, W. S.** Osmotic and metabolic effects of dextran and globin.

NHI—\$16,425

**Emmel, V. M.** Vascular change in experimental renal hypertension.

NHI—\$3,713

**McCann, W. S.** Inter-relationships of circulation and respiration.

NHI—\$12,361

**Cowen, E. L.** Factors related to psychological rigidity.

NIMH—\$3,887

**Neufeld, H. A.** (PM) Department of Biochemistry.

\*DRG

**Fancher, J. A.** (PD) Department of Biochemistry.

\*NCI

**Izzo, A. J.** (PD) Department of Medicine.

\*NCI

**Wisotsky, J.** (PD) Department of Physiology.

\*NIDR

**Cameron, D. P.** (PM) Department of Chemistry.

\*DRG

## Syracuse

### Syracuse University

**Boss, W. R., Evans, H. J., and Osborn, C. M.** Water and electrolyte metabolism.

NHI—\$12,500

**Glitzer, M. S.** (PM) Department of Zoology.

\*DRG

**Smith, L. H.** (PM) Department of Zoology.

\*DRG

**Liccione, J. V.** (PM) Department of Psychology.

\*NIMH

## Trudeau

### Trudeau Foundation

**Steenken, W. J.** Biological properties of tubercle bacilli.

NMI—\$25,596

**Wright, G. W.** Industrial pulmonary disability.

DRG—\$14,000

## NORTH CAROLINA

### Chapel Hill

#### University of North Carolina

**Whittinghill, M.** Mode of inheritance of rheumatoid arthritis.

NIAMD—\$6,878

**Humm, D. G.** Embryology and metabolism of melanomas.

NCI—\$7,225

**Palmer, J. G.** Etiology and nature of drug leukopenia.

NCI—\$7,441

**Cromartie, W.** Tissue damage in group A streptococcal infection.

NMI—\$10,810

**Brinkhous, K.** Blood coagulation.

DRG—\$15,900

**Greenberg, B.** Statistical methods in biochemistry of growth.

DRG—\$2,808

**Hartung, W. H.** Amide and ester derivatives of amino acids.

DRG—\$6,500

**Farmer, T. W.** Radioactive iodine in disease of the nerves.

DRG—\$10,692

**Ferguson, J. H.** Physiology of blood enzymes and clotting.

NHI—\$13,250

**Peters, R. M.** Effects of various gases upon pulmonary blood flow.

NHI—\$8,000

## Durham

### Duke University

**Margolis, G. M.** New histochemical technics in neuropathology.

NINDB—\$5,184

**Rogers, S.** Conditions of tumor origin and growth.

NCI—\$9,558

**Bradsher, C. K.** Growth-inhibiting compounds.

NCI—\$6,156

**Wharton, G. W.** Host-parasite relationships in mites.

NMI—\$3,942

**Handler, P.** Metabolic role of glutamine.

DRG—\$9,936

**Grimson, K. S.** Treatment of complications after vagotomy.

DRG—\$9,072

**Schwert, G. W.** Characterization and specificity of enzyme systems.

DRG—\$7,500

**Nace, G. W.** Antigens in the development of the embryo.

DRG—\$6,339

**Hetherington, D.** Standardization of tissue culture media.

DRG—\$9,936

**Boone, A. W., Jr.** Renal homografts.

DRG—\$3,264

**Kempner, W.** Diet in hypertension and arteriosclerosis.

NHI—\$35,000

**Mommaerts, W. F. H. M.** Physicochemical studies of heart muscle protein.

NHI—\$17,485

**Warren, J. V.** Mechanisms regulating blood volume.

NHI—\$13,057

**Brown, I. W., Jr.** Preservation of blood cells at low temperature.

NHI—\$18,805

**Beavers, L. E.** (PM) Department of Chemistry.

\*DRG

**Hester, R.** (PM) Department of Psychology.

\*NIMH

**Cobey, F. A.** (PM) Department of Biochemistry.

\*DRG

### Winston-Salem

#### Wake Forest Bowman Gray Medical School

**Cayer, D.** Phospholipide synthesis and disorders of fat metabolism.

NIAMD—\$6,912

**Boyce, W. H.** Urinary calculi.

NIAMD—\$9,828

**Meads, M., and Lawson, R. B.** Artificial antigens for immunization of man.

NMI—\$6,744

**Little, J. M.** Study of diuretic factor found in urine.

DRG—\$7,560

**Swanson, M. A.** Intracellular "phosphatases" of the liver.

DRG—\$3,591

**Roberts, R. W.** Glaucoma studies.

DRG—\$3,500

### NORTH DAKOTA

#### Grand Forks

#### University of North Dakota

**Cornatzer, W. E.** Phospholipide turnover in animals and man.

NIAMD—\$8,000

**Ruth, E. B.** The morphogenesis of osseous tissue.

DRG—\$5,760

### OHIO

#### Athens

#### Ohio University

**Hudson, E. H.** Bejel; endemic syphilis in Syria and Iraq.

NMI—\$9,180

#### Cincinnati

#### Christ Hospital

**Schmidt, L. H.** Chemotherapy of *Plasmodium cynomolgi* in monkeys.

NMI—\$15,000

#### Institutum Divi Thomae

**Fardon, J. C.** Tumor resistance induced by regressed tumors.

NCI—\$3,925

#### University of Cincinnati

**Hamburger, M. J.** Antihyaluronidases in rheumatism and nephritis.

NIAMD—\$7,560

**Siler, V. E.** Removal of devitalized tissue from burns.

DRG—\$9,774

**Phair, J. J.** Relationship of morbidity incidence to air pollution.

DRG—\$31,482

**Krueger, R. C.** Enzymatic oxidative decarboxylation of acids.

DRG—\$3,000

**McGuire, J.** Ballistocardiograms in health and disease.

NHI—\$11,664

**Assali, N. S.** Toxemia of pregnancy and uterine blood flow.

NHI—\$10,000

**Whittaker, V. P.** The isolation of choline esters from tissues.

NHI—\$8,370

**Ferris, E. B., Jr.** Hyponatremic state.

NHI—\$12,960

**Palchak, R. J.** (PM) Department of Chemistry.

\*DRG

**Rombach, L. H.** (PM) Department of Chemistry.

\*NCI

#### Xavier University

**Peters, J. J., and Vonderahe, A.** Encephalography of the salamander.

NINDB—\$4,450

### Cleveland

#### Cleveland Clinic Foundation

**Haserick, J. R.** Cortisone therapy of lupus.

NIAMD—\$16,682

**Page, I. H.** Chemical mechanisms in hypertension.

NHI—\$18,792

**Page, I. H.** Lipoproteins and arterial disease.

NHI—\$40,113

#### University Hospitals of Cleveland

**Holden, W. D.** Source of the serum hyaluronidase inhibitor.

NHI—\$7,115

#### Western Reserve University

**Lazarow, A.** Factors that ameliorate the development of experimental diabetes.

NIAMD—\$11,782

**Heymann, W.** Pathogenesis of nephrotic hyperlipemia.

NIAMD—\$5,940

**Patterson, J. W.** Development of diabetic cataract.

NIAMD—\$10,006

**Spector, S., Matthews, L. W., and Olynk, P.** Endocrine effect on fat metabolism *in vivo*.

NIAMD—\$8,000

**Peters, L., and Ballintine, E. J.** Secretory mechanism of ciliary body.

NINDB—\$6,481

**Korey, S. R.** Phospholipid synthesis in the nervous system.

NINDB—\$8,000

**Simeone, F. A.** Neoplasms of the gastro-intestinal tract.

NCI—\$4,408

**Kinney, T. D.** Spectrographic analysis of neoplastic tissues.

NCI—\$12,688

**Krampitz, L. O.** Microbiology of dental caries.

NIDR—\$9,909

**Bueding, E.** Biochemistry of parasitic helminths.

NMI—\$28,852

**Pillemer, L.** Physico-chemical characteristics of toxins, antigens.

NMI—\$11,664

**Welch, A. D.** Biological significance of pteroylglutamic acid.

DRG—\$20,000

**Miller, M.** Intermediary metabolism *in vivo*.

DRG—\$8,640

**Ratnoff, O. D.** Alteration of hemostatic mechanisms in disease.

DRG—\$12,841

**Orbison, J. L.** Characteristics and applications of metachromasy.

DRG—\$5,801

**Ross, O. A.** Effects of heat on ground substance and collagen.

DRG—\$5,292

**Orbison, J. L.** Relationship of arteritis to hypersensitivity.

NHI—\$4,644

**Eckstein, R. W.** Factors affecting adequacy of coronary flow.

NHI—\$9,227

**Kinney, T. D.** Experimental embolism.

NHI—\$3,500

**Hackel, D. B.** Clinical studies of cardiac metabolism.

NHI—\$5,333

**Koletsky, S.** Hypertension and arteriosclerosis.

NHI—\$4,500

**Selkurt, E. E.** Circulatory interrelation between liver and heart.

NHI—\$9,394

**Ham, T. H.** Mechanism of destruction of red blood cells.

NHI—\$12,040

**Goldstein, M. N.** (PD) Department of Cytology.

\*NIMH

**Ito, S.** (PM) Department of Biology.

\*NHI

**Smith, I. L.** (PD) Department of Pathology.

\*NCI

## Columbus

### Ohio State University

**Wikoff, H.** Significance of hyaluronidase in aqueous humor of eye.

NINDB—\$4,075

**Worden, R. E.** Evaluation of cold analgesia in rehabilitation.

NINDB—\$10,000

**Newman, M. S.** Synthetic studies of steroids.

NCI—\$6,480

**Frajola, W. J.** Cytochemistry of neoplastic lymph node cells.

NCI—\$13,356

**Lessler, M. A.** Microcolorimetric differentiation of nucleic acids.

NCI—\$3,499

**DeLong, D. M.** Behavior of larval and adult mosquitoes.

DRG—\$9,410

**Fox, A. S.** Immunogenetics of *Drosophila* and *Neurospora*.

DRG—\$9,000

**Green, E. L.** Genetics of skeletal variations.

DRG—\$4,223

**Pressey, S. L.** Factors leading to adjustment in old age.

NIMH—\$9,866

**Anno, K.** (SP) Department of Chemistry.

\*DRG

## Oxford

### Miami University

**Stark, O. K.** Persistence of pneumococcal polysaccharide in tissues.

NMI—\$2,700

## OKLAHOMA

### Oklahoma City

#### Oklahoma Medical Research Foundation

**Reifenstein, E., and Eliel, L. P.** Modification of growth of cancerous and normal tissue.

NCI—\$24,732

#### University of Oklahoma

**Bayley, R. H.** 3-dimensional electrocardiography.

NHI—\$4,968

**Hopps, H. C.** Nature and pathogenesis of glomerulonephritis.

NHI—\$4,500

**Bayley, R. H.** New method of measuring peripheral circulation.

NHI—\$4,268

**Faulkner, K. K.** (PM) Department of Physiology.

\*DRG

## Stillwater

### Oklahoma Agricultural and Mechanical College

**MacVicar, R. W.** Amide nitrogen metabolism in animal tissues.

DRG—\$3,500

## OREGON

### Corvallis

#### Oregon State College

**Cheldelin, V. H.** Studies of conjugated forms of pantothenic acid.

DRG—\$6,000

### Eugene

#### University of Oregon

**Reithel, F. J.** Carbohydrate metabolism in lactating mammary gland.

NCI—\$5,097

**Scheer, B. T.** Anesthetic vapors and action on nerve.

NINDB—\$6,480

## Portland

### University of Oregon

**Heller, C. G.** Study of sterility in man.

NIAMD—\$6,480

**West, E. S.** Metabolic inhibitors and diabetic ketosis.

NIAMD—\$5,383

**Brookhart, J. M.** The pyramidal system of brain and spinal cord.

NINDB—\$4,995

**Tunturi, A. R.** Physiology of auditory cortex.

NINDB—\$8,000

**Snyder, M. L.** Laboratory tests for caries activity.

NIDR—\$12,000

**Pearson, A. A.** The development of the nervous system in man.

DRG—\$3,200

## PENNSYLVANIA

### Bryn Mawr

#### Bryn Mawr Hospital

**Strumia, M. M.** Methods of preparation and storage of whole blood.

NHI—\$32,940

### Philadelphia

#### Academy of Natural Sciences

**Patrick, R.** Median tolerance limit of organisms in a stream.

NMI—\$12,500

#### Children's Hospital

**Scott, T. F. M.** Development of the virus of herpes simplex.

NMI—\$13,998

**Werner, H.** Virus-host studies in influenza-chick embryo system.

NMI—\$17,496

**Karush, F.** Interactions of proteins with small molecules.

NHI—\$8,100

#### Hahnemann Medical College and Hospital

**Alper, C.** The chemistry of serum tributyrinase.

DRG—\$5,610

#### Institute for Cancer Research and Lankenau Hospital Research Institute

**Toennies, G.** Sulfur-containing components of nucleoproteins.

NCI—\$11,660

**Stekol, J. A.** Amino acid interconversions in tumorous animals.

NCI—\$13,900

**Lavine, T. F.** Studies on sulfur compounds of biological interest.

NCI—\$2,700

**Patterson, A. L.** Crystallography of biological systems.

NCI—\$19,336

**Weinhouse, S.** Intermediary metabolism of neoplastic tissues.

NCI—\$9,676

**Weinhouse, S.** Intermediary fatty acid metabolism of normal and neoplastic tissues.

NCI—\$10,000

**Toennies, G.** Folic acid and related compounds in human blood.

NCI—\$14,850

***Institute of the Pennsylvania Hospital***

**Watson, R. E.** Influence of early environment on behavior and neurosis.

NIMH—\$1,000

***Jefferson Medical College***

**Hausberger, F. X.** Insulin secretion by the beta cells.

NIAMD—\$4,929

**Angel, J. L.** Man's structure in relation to chronic diseases.

NIAMD—\$5,837

**Town, A. E.** Ocular changes in alloxan diabetes.

NINDB—\$4,000

**Wagman, I. H.** Neuromuscular system during growth.

NINDB—\$7,965

**Stasney, J.** Transmission of neoplasms by cell fractions.

NCI—\$6,580

**Gibbon, J. H., Jr.** Electrolyte distribution after pneumonectomy.

NCI—\$6,700

**Waldron, J. M.** Blood coagulation response in patients with cancer.

NCI—\$3,925

**Friedman, M. H. F.** Histophysiology of gastric secretion.

NCI—\$3,800

**Paschkis, K. E., and Cantarow, A.** Metabolism of steroid hormones.

NCI—\$8,190

**Tocantins, L.** Nature of anticephalin activity of blood.

DRG—\$10,962

**D'Angelo, S. A.** Thyroid-pituitary interaction.

DRG—\$8,100

**Pearlman, W. H.** *In vitro* metabolism of progesterone.

DRG—\$4,190

**Pearlman, W. H.** Estrogen metabolism in human pregnancy.

DRG—\$5,562

**Wagman, I. H., Waldman, J., and Naidoff, D.** Clinical application of the electroretinogram.

DRG—\$11,583

**Alpers, B. J.** Radioactive material to localize brain tumors.

DRG—\$11,566

**Gibbon, J. H., Jr.** Development of a mechanical heart and lung.

NHI—\$31,935

**Gibbon, J. H., Jr.** Respiratory acidosis in surgical operations.

NHI—\$2,602

**Schroy, P. C.** (PM) Department of Anatomy.

\*NHI

***Philadelphia General Hospital***

**McMillan, T. M.** Studies on serum potassium.

NHI—\$15,000

***Temple University***

**Harrison, J. A.** Cytology of serological reactions in the *Salmonella*.

NMI—\$8,985

**Oppenheimer, M. J.** Electroky-mography.

NHI—\$17,705

**Ellis, S.** Chemistry of actions of acetylcholine and epinephrine.

NHI—\$8,535

**Bobb, J. R.** Relation of arterio-venous fistulae to endocarditis.

NHI—\$4,500

***University of Pennsylvania***

**Hollander, J. L.** Compound F in the rheumatoid arthritic joint.

NIAMD—\$10,000

**Lilly, J. C.** Electrical activity of central nervous system.

NINDB—\$6,000

**Sprague, J. M.** Secondary sensory systems of spinal cord.

NINDB—\$4,999

**Comroe, J. H., Jr.** Peripheral neuromuscular system.

NINDB—\$5,000

**Piatt, J.** Regeneration of the spinal cord in amphibia.

NINDB—\$3,134

**Liu, C. N.** Regeneration within the central nervous system.

NINDB—\$7,925

**Chambers, W. W.** Production and control of abnormal muscle tone.

NINDB—\$8,097

**Heilbrunn, L. V.** Relation of cell division to colloidal change.

NCI—\$13,876

**Coman, D. R.** Mechanisms of invasive growth.

NCI—\$40,072

**Breedis, C.** Blood supply of neoplasms.

NCI—\$4,979

**Gurin, S.** Biosynthetic compounds and malignancy.

NCI—\$13,932

**Allam, M. W.** The transmissibility of malignant neoplasms.

NCI—\$12,000

**Urbach, F.** Effect of agents on O<sub>2</sub> tension in neoplasms.

NCI—\$7,023

**Krogman, W. M.** Growth changes in head, face, and teeth during changing dentition.

NIDR—\$17,450

**Aronson, J. D.** Pathogenesis of experimental tuberculosis.

NMI—\$12,500

**Kligman, A. M.** Pathogenesis of ringworm infections.

NMI—\$8,575

**Stadie, W. C.** Effect of insulin and metabolic reactions *in vitro*.

DRG—\$19,359

**Chance, B.** Mechanism of action of iron porphyrin enzymes.

DRG—\$10,000

**Cantino, E. C.** Physiology, morphogenesis, and sex in *Blastocladiella*.

DRG—\$4,790

**Shelley, W. B.** Human apocrine sweat gland.

DRG—\$5,877

**Shelley, W. B.** A new group of hair-growth inhibitors.

DRG—\$9,731

**Jeffers, W. A.** Role of adrenal function in hypertension.

NHI—\$7,560

**Kay, C. F.** Theory of electrocardiography.

NHI—\$14,985

**Elkinton, J. R.** Electrolyte disturbances in cardiovascular disease.

NHI—\$27,486



**Jeffers, W. A.** Cerebral circulation in hypertension.

NHI—\$9,962

**Montgomery, H.** Oxygen tension and metabolism in skin.

NHI—\$6,058

**Clark, J. K.** Physiologic aspects of kidney disease.

NHI—\$19,570

**Comroe, J. H., Jr.** Inert gas exchange in pulmonary function.

NHI—\$10,000

**Comroe, J. H., Jr.** Regional circulation in health and disease.

NHI—\$11,999

**Montgomery, H.** Study of vasodilator drugs.

NHI—\$7,102

**Ravdin, I. S., and Rhoades, J. E.** Preservation of blood elements and derivatives.

NHI—\$27,500

**Piersol, G. M.** Electrical impedance of blood.

NHI—\$9,796

**Gray, A. I.** (PM) Department of Immunology.

\*NMI

**Paucker, K.** (PM) Department of Hygiene and Public Health.

\*NMI

**Saul, G. B.** (PM) Department of Zoology.

\*NCI

**West, J. W.** (PM) Department of Pharmacology.

\*NHI

**Jackson, S. W.** (PM) Department of Microbiology.

\*NIDR

**Levenberg, B.** (PM) Department of Physiological Chemistry.

\*DRG

**Brill, A. S.** (PM) Department of Biophysics.

\*DRG

**Belsky, M. M.** (PM) Department of Botany.

\*DRG

**Cooper, C.** (PM) Department of Physiological Chemistry.

\*DRG

## Pittsburgh

### Duquesne University

**Gawron, O., and Schreiber, K. C.** The stereochemistry of the cisaconitase system.

DRG—\$4,250

### Mercy Hospital

**Foldes, F. F.** Local anesthetic agents and muscle relaxants.

DRG—\$5,200

### University of Pittsburgh

**Reyer, R. W.** Experimental study of lens induction in amphibians.

NINDB—\$3,500

**Olson, R. E.** Metabolism of tumor and embryonic tissue.

NCI—\$10,750

**Hofmann, K.** Studies of peptides of high molecular weight.

DRG—\$5,940

**Danowski, T. S.** Serum creatine tolerances in humans.

DRG—\$3,240

**Danowski, T. S.** Thyroxine fractions of serum protein-bound iodine.

DRG—\$2,800

**Fischer, M. A.** Serum and liver proteins in choline deficiency.

DRG—\$7,000

**Lauffer, M. A., and Hanig, M.** Blood lipoproteins and atherosclerosis.

NHI—\$40,584

**Danowski, T. S.** ACTH-cortisone therapy in rheumatic fever.

NHI—\$3,240

**Danowski, T. S.** Efficiency of cation exchangers.

NHI—\$3,672

**Belding, H. S.** Vascular responses to thermal stress related to age.

NHI—\$8,640

## State College

### Pennsylvania State College

**Pepinsky, R.** Analysis of metabolic factors by X-ray diffraction.

NIAMD—\$30,000

**Frings, H.** Reception of sonic waves by insects.

DRG—\$4,320

**Grutter, F.** (PM) Department of Bacteriology.

\*NCI

## RHODE ISLAND

### Kingston

#### University of Rhode Island

**Hartung, E. W.** Tumor incidence in *Drosophila melanogaster*.

NCI—\$600

### Providence

#### Brown University

**Wilson, J. W.** Nuclear phenomena in liver cells.

NCI—\$14,097

**Chase, H. B.** Hair and skin cycles as related to radiation.

NCI—\$7,100

**Stuart, C. A.** Bacterial transformation colony variants.

NMI—\$4,666

**Edds, M. V., Jr.** Recovery of partially denervated muscles.

DRG—\$4,250

**Argyris, T. S.** (PM) Department of Biology.

\*NCI

## SOUTH CAROLINA

### Charleston

#### Medical College of the State of South Carolina

**Boltjes, B. H.** An antigenic analysis of *H. pertussis*.

NMI—\$8,440

**Goldberg, J.** Antigenic homogeneity and serology of *D. granulomatis*.

NMI—\$5,250

**Kind, L. S.** Consequences of pertussis immunization.

NMI—\$5,974

**Taber, E.** Endocrine influencing differentiation.

DRG—\$5,000

**Brown, J. M.** Effects of anesthetic agents on the heart.

NHI—\$4,131

**Horres, A. D.** (PM) Department of Physiology.

\*NHI

## SOUTH DAKOTA

### Vermillion

#### University of South Dakota

**Krueger, K. K.** Respiration and metabolism of *Paramecium caudatum*.

DRG—\$2,198

## TENNESSEE

### Memphis

#### University of Tennessee

**Scheibel, A. B.** Anatomy of neuropil areas.  
NINDB—\$8,100

**Wood, J. L.** Sulfur in the metabolism of aromatic hydrocarbons.  
NCI—\$5,400

**Quigley, J. P.** Measurements of intra-abdominal pressures.  
DRG—\$5,999

**Hardy, J. D.** Metabolic reactions to staged operations.  
DRG—\$8,991

**Jones, R. S.** Effect of altered collagen on rheumatoid lesions.  
NHI—\$6,000

**Etteldorf, J. N., and Hughes, J. G.** Hypertension in acute (juvenile) nephritis.  
NHI—\$12,026

**Little, R. C.** Effect of right heart strain.  
NHI—\$1,499

**Houck, C. R.** Chronic biochemical consequences of double nephrectomy.  
NHI—\$3,129

**Cooley, S. L.** (PM) Department of Chemistry.  
\*DRG

### Nashville

#### Fisk University

**Fuson, N., and Josien, M. L.** Infrared spectrometry of compounds related to cancer.  
NCI—\$10,800

#### Meharry Medical College

**West, H. D.** Metabolism of bi-phenyl and related compounds.  
NCI—\$4,000

**Burgess, L. E.** Physiological role of three pterine.  
DRG—\$4,500

#### Vanderbilt University

**Darby, W. J.** Nutrition in pregnancy.  
NIAMD—\$4,600

**Ward, J. W.** Extrapyramidal pathways of brain and spinal cord.  
NINDB—\$8,024

**Touster, O.** Factors in the biosynthesis of ergothionine.  
NCI—\$4,065

**Bush, M. T.** The growth and properties of bacterial viruses.  
NMI—\$6,481

**Goodpasture, E.** Mutation of fowl-pox virus.  
NMI—\$4,644

**Bush, M. T.** Barbituric acid anesthetics.  
DRG—\$5,643

**Meng, H. C.** Complete parenteral alimentation.  
NHI—\$6,642

**Copple, G. E.** Determinants of I. Q. changes in retarded children.  
NIMH—\$5,108

**Rosenberg, D.** (PM) Department of Psychology.  
\*NIMH

**Eastes, F. E.** (PM) Department of Chemistry.  
\*NCI

## TEXAS

### Abilene

#### Abilene Christian College

**Dunn, F. W.** Preparation and properties of peptide analogues.  
DRG—\$4,280

### Austin

#### Texas State Board of Health

**Irons, J. V.** Chick-embryo-membrane culture smallpox vaccine.  
NMI—\$9,115

#### University of Texas

**Steel, E. W.** Effect of sewage irrigation on soils.  
DRG—\$2,300

**Snell, E. E.** Nutritive requirements of microorganisms.  
DRG—\$7,268

**Hagy, G. W.** (PM) Department of Zoology.  
\*NCI

### College Station

#### Texas Agricultural and Mechanical College

**Couch, J. R.** Nutritional requirements of the embryo.  
DRG—\$2,500

### Dallas

#### Southwestern Medical School

**Muirhead, E.** Kidney transplants in experimental hypertension.  
NHI—\$10,692

**Wilson, B. J., and Reid, A. F.** Factors influencing blood volume.  
NHI—\$11,680

**Clayton, R. S.** Tagged and iodinated agents in nerve disorders.  
NINDB—\$3,000

### Denton

#### Texas State College for Women

**Mack, P. B.** Skeletal growth and maturation of children.  
NIAMD—\$10,000

### Galveston

#### University of Texas

**Schneider, M., and Finerty, J. C.** Radiation protection by postirradiation parabiosis.  
NCI—\$5,670

**Gingrich, W. D., and Box, E. D.** Chemotherapy of avian and rodent malaria.  
NMI—\$1,991

**Micks, D. W.** Susceptibility of mosquitoes to malarial parasites.  
NMI—\$5,940

**Blocker, T. G., Jr.** Protein metabolism in burns.  
DRG—\$20,000

### Houston

#### Baylor University

**Williams, R. P.** Virulence of biochemical mutants of *B. anthracis*.  
NMI—\$8,046

**Moyer, J. H.** Neurogenic factors, renal function and acute anuria.  
DRG—\$2,359

**Moyer, J. H.** Investigation of cerebral blood flow changes.  
NHI—\$2,592

#### Rice Institute

**Ettlinger, M. G.** Biogenesis of L-5-vinyl-2-thioxazolidone.  
NIAMD—\$2,160

**Daugherty, J. W.** Amino acid metabolism of helminth parasites.  
NMI—\$6,210

#### University of Texas

**Wynne, E. S.** Physiological studies on spore germination.  
NCI—\$1,400

**Fletcher, C. H.** Clinical investigation of a 22 mev betatron.  
NCI—\$39,276

**Russell, W. O., and Wynne, E. S.** Possible viral causes of ocular carcinoma.  
NCI—\$10,152

## Prairie View

*Prairie View Agricultural and Mechanical College*

High, E. G. Kidney Vitamin A.  
DRG—\$5,000

## UTAH

### Provo

*Brigham Young University*

Beck, J. V. Purine metabolism of  
*Clostridium acidurici*.  
NCI—\$3,000

### Salt Lake City

*University of Utah*

Wintrobe, M. M. Muscular dys-  
trophy.  
NIAMD—\$90,000

Goodman, L. S. Physiology and  
therapy of convulsive disorders.  
NINDB—\$13,986

Borison, H. L., and Goodman,  
L. S. Pharmacology and physiology  
of brain stem.  
NINDB—\$7,284

Swinyard, C. A. Mastication in  
cerebral palsy and poliomyelitis.  
NINDB—\$9,973

Samuels, L. T. Steroids in rela-  
tion to carcinogenesis.  
NCI—\$10,935

Plenk, H. P. Mechanism of radi-  
ation induced leukemia.  
NCI—\$3,000

Bowers, J. Z. Effects of ionizing  
radiation on subhuman primates.  
NCI—\$24,732

Gebhardt, L. P. Virulence mecha-  
nism of pathogenic fungi.  
NMI—\$6,583

Marcus, S. Improved resistance  
of radiated animals to infection.  
NMI—\$6,750

Wintrobe, M. M. Pathogenesis of  
anemia associated with infections.  
DRG—\$33,264

Dickman, S. R. Aconitase.  
DRG—\$6,500

Davenport, H. W. Physiology  
and biochemistry of gastric acid.  
DRG—\$4,957

Hecht, H. H. Pathological phys-  
iology of polycythemia.  
NHI—\$12,526

Kelley, V. C. Relation of en-  
zymatic phenomena to rheumatic  
fever.  
NHI—\$16,116

Fingl, E. G. (PD) Department of  
Pharmacology.  
\*NHI

Kato, H. P. (PM) Department of  
Chemistry.  
\*DRG

Plager, J. E. (PM) Department  
of Biochemistry.  
\*NIAMD

Van Orden, H. O. (SP) Depart-  
ment of Hereditary and Metabolic  
Diseases.  
\*DRG

Bush, J. A. (PD) Department of  
Medicine.  
\*NHI

## VERMONT

### Burlington

*University of Vermont*

Pearson, B. Cell changes in car-  
cinogenesis.  
NCI—\$15,000

Lepeschkin, E. Electrocardio-  
graphic study of exercise effects.  
NHI—\$9,000

Spelman, J. W. Pathogenesis of  
thrombosis.  
NHI—\$4,840

### Winooski Park

*St. Michael's College*

Sullivan, T. D. Effects of sul-  
phydryl on ascites tumor.  
NCI—\$9,918

## VIRGINIA

### Arlington

*Anderson Orthopedic Hospital*

Mosiman, R. S. Bone growth.  
DRG—\$8,499

### Blacksburg

*Virginia Polytechnic Institute*

Ripley, P. A. (PB) Department  
of Chemical Engineering.  
\*NMI

### Charlottesville

*University of Virginia*

Leavell, B. S. Determination of  
trace elements in human blood.  
DRG—\$3,000

Watts, D. T. Sympathico-adrenal  
function.  
DRG—\$5,940

Volk, W. A., and Feller, A. E. In-  
termediary metabolism of *Propioni-  
bacterium pentosaceum*.  
DRG—\$4,806

Lowrance, P. Electrophoretic pat-  
terns of plasma proteins.  
NHI—\$4,644

Suter, C. G. (PD) Department  
of Neurology.  
\*NIMH

Rathbun, D., Jr. (PD) Depart-  
ment of Medicine.  
\*NHI

### Richmond

*Virginia Medical College*

Clayton, C. C. Minerals in car-  
cinogenesis.  
NCI—\$4,500

Williams, G. Z. Effect of can-  
cerocidal agents and radioisotopes  
on intraperitoneal tumors in mice.  
NCI—\$8,014

Kreshover, S. Prenatal influences  
on the development of teeth.  
NIDR—\$7,697

Huf, E. G. Electrolyte effects on  
membrane potentials.  
DRG—\$4,657

Evans, E. I. Fate of preserved  
red cells in surgical patients.  
NHI—\$46,022

## WASHINGTON

### Pullman

*State College of Washington*

Stacy, G. W. Cortical hormone  
analogs.  
NIAMD—\$3,075

Dunstan, G. H. Microbiology of  
waste disposal.  
NMI—\$6,863

Johnson, O. H. Destruction of  
botulism toxin in drinking water.  
NMI—\$3,610

Morath, R. J. (PM) Department  
of Chemistry.  
\*DRG

Rorem, E. S. (PM) Department  
of Bacteriology.  
\*DRG

## Seattle

### King County Central Blood Bank, Inc.

**Czajkowski, J. R., and Finch, C. A.** Packed erythrocytes as transfusion media.

NHI—\$4,454

### University of Washington

**Moll, F. C.** Experimental hypersensitivity.

NIAMD—\$9,450

**Ward, A. A., Jr.** Seizure mechanisms.

NINDB—\$9,000

**Blandau, R. J.** Advanced cytological studies in blood.

NCI—\$4,390

**DeMarsh, Q. B.** Effects of oxy-steroids on leukemic tissue.

NCI—\$13,724

**Woodbury, J. W.** Effects of radiations on cell potentials.

NCI—\$6,079

**Fletcher, T. L.** Fluorene and aminofluorene derivatives.

NCI—\$6,210

**Kirby, W. M. M.** Antibiotics, K. pneumoniae, and resistant staphylococci.

NMI—\$5,000

**Finch, C. A.** Iron metabolism.

DRG—\$10,476

**Bennett, H. S.** Optical properties of muscle.

DRG—\$6,480

**Neurath, H.** Proteolytic enzymes and their substrates.

DRG—\$8,640

**Blandau, R. J.** Effect of ovum age on the process of fertilization.

DRG—\$10,820

**Weiser, R. S.** Nature of auto-antibodies in hemolytic anemia.

DRG—\$12,528

**Ray, R. D.** Bone grafts.

DRG—\$10,082

**Harkins, H. N., and Kanar, E. A.** Effect of gastrojejunostomy upon gastric secretion.

DRG—\$3,094

**Storlazzi, M.** Determination of ozone in air.

DRG—\$3,240

**Sand, O. P.** Curriculum research and evaluation in nursing education.

DRG—\$28,836

**Rushmer, R. F.** Heart physiology studied by X-ray motion pictures.

NHI—\$10,000

**Dandliker, W. B., Hanahan, D. J., Huennekens, F. M., Krebs, E. G., and Neurath, H.** Enzymatic components of human blood.

NHI—\$34,970

**Chappelle, E. W.** (PB) Department of Biochemistry.

\*NHI

**Moore, H. G.** (PD) Department of Surgery.

\*NCI

**Nyhus, L. M.** (PD) Department of Surgery.

\*DRG

**Ridgway, G. J.** (PM) Department of Microbiology.

\*DRG

**Curtis, W.** (PD) Department of Microbiology.

\*DRG

**Gladner, J. A.** (PM) Department of Biochemistry.

\*DRG

## WISCONSIN

### Madison

#### University of Wisconsin

**Woolsey, C. N.** Afferent and efferent systems of mammalian brain.

NINDB—\$7,500

**Potter, V. R.** Biochemical synthesis connected with growth.

NCI—\$21,240

**Rusch, H. P.** Metabolism of tumor resistance.

NCI—\$3,866

**Heidelberger, C.** C<sup>14</sup>-labeled carcinogens.

NCI—\$8,154

**Lederberg, J.** Genetics of bacteria.

NMI—\$9,180

**Stahmann, M. A.** Virus inhibitory activity of synthetic polypeptides.

NMI—\$6,000

**Brandly, C. A.** Epidemiology and immunology of pneumonia-enteritis.

NMI—\$8,685

**Keitt, G. W.** *Venturia inaequalis*—genetics, nutrition, pathogenicity.

NMI—\$8,467

**Lardy, H. A.** Intermediary metabolism of carbohydrates.

DRG—\$8,100

**Shideman, F. E.** Kidney performance of osmotic work.

DRG—\$8,000

**Meyer, R. K., and McShan, W. H.** Biological action of steroids.

DRG—\$11,772

**Skoog, F. K., and Gerloff, G. C.** Nutrition of blue-green algae.

DRG—\$11,145

**Lalich, J. J.** Pathogenesis of hemoglobinuric nephrosis.

DRG—\$4,860

**Strong, F. M.** Chemistry and metabolism of pantothenic acid.

DRG—\$4,816

**McShan, W. H., and Meyer, R. K.** Pituitary gonadotrophic hormones.

DRG—\$5,499

**Cohen, P. P.** The enzymatic steps in the synthesis of citrulline.

DRG—\$6,750

**Wilson, P. W.** Terminal respiratory enzyme systems of bacteria.

DRG—\$10,584

**Anderson, L.** Synthesis of some inosamine o-Glycosides.

DRG—\$5,400

**Wragg, L. E.** (PM) Department of Anatomy.

\*NCI

**Moldave, K.** (PD) Department of Oncology.

\*NCI

## Milwaukee

### Marquette University

**Saunders, J. W., Jr.** Melanin pigmentation in higher vertebrates.

\*NCI—\$4,000

**Ryge, G.** Study of microstructure of amalgam.

NIDR—\$3,390

**Quick, A. J.** Prothrombin consumption time in hemophilia.

DRG—\$6,998

**Engstrom, W. W.** Precursor steroids of urinary steroids.

DRG—\$2,000

## HAWAII

### Honolulu

#### *Hawaii Board of Health*

Levine, M. Culture media for field identification of bacteria.

NMI—\$6,450

## PUERTO RICO

### Rio Piedras

#### *University of Puerto Rico*

Tyler, D. B. Naturally-occurring inhibitor-lysin systems.

DRG—\$4,990

### San Juan

#### *University of Puerto Rico*

Tyler, D. B. Enzyme activity in the developing brain.

NINDB—\$4,995

Reinecke, R. M. The kidney in organic metabolism.

DRG—\$5,508

## BRITISH ISLES

### London

#### *Great Britain Medical Research Council*

Werner, A. Y. (PD) Department of Physiology.

\*NHI

#### *Royal Cancer Hospital*

Haddow, A. Mechanisms of genesis and therapy of cancer.

NCI—\$10,000

Shalek, R. J. (PD) Department of Biophysics.

\*DRG

#### *University of London*

Sommer, L. S. (PD) Department of Medicine.

\*NHI

## CANADA

### Montreal

#### *McGill University*

Cameron, T. W. M. Biology of arctic sylvatic helminthiasis.

NMI—\$7,200

Dilworth, M. (PD) Department of Neurology.

\*NINDB

Lesser, E. (PM) Department of Parasitology.

\*NIMH

## DENMARK

### Copenhagen

#### *Carlsberg Foundation*

Jensen, W. A. (PM) Department of Cytology.

\*NCI

#### *National Danish Association Against Rheumatic Diseases*

Jarlov, E. Analyses of tissue responses to cortisone.

NIAMD—\$960

#### *University of Copenhagen*

Lennox, M. A. (SP) Department of Neurology.

\*NIMH

## FRANCE

### Paris

#### *Pasteur Institut*

Lwoff, A. Development of enzymes and viruses in bacteria.

NCI—\$12,000

#### *Union Internationale Contre le Cancer*

Maisin, J. To aid the international coordination of cancer research.

NCI—\$3,750

#### *University of Paris*

Borroughs, H. J. (PD) Department of Biophysics.

\*NCI

## GUATEMALA

### Guatemala City

#### *Pan American Sanitary Bureau*

Farnsworth, S. Onchocerciasis and its vector in Guatemala.

NMI—\$42,700

## PERU

### Lima

#### *Institute of Andean Biology*

Hurtado, A. Acclimatization to high altitudes.

DRG—\$23,600

## SOUTH AFRICA

### Johannesburg

#### *South African Institute for Medical Research*

Higginson, J., and Oettle, A. G. A survey of malignant disease in South African Bantu.

NCI—\$3,600

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*This list was prepared by the Division of Research Grants, National Institutes of Health, Public Health Service.*

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